SITE INSPECTION

C.R. Warner, Incorporated

WOODSTOWN TOWNSHIP, SALEM COUNTY

EPA ID No.: NJD011881174

New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
Bureau of Planning and Assessment

C. R. WARNER
EAST LAKE ROAD
WOODSTOWN TOWNSHIP
SALEM COUNTY, NEW JERSEY
EPA I.D. NO. NJD011881174

TABLE OF CONTENTS

NARRATIVE

C.R. WARNER, INC.
EAST LAKE ROAD
WOODSTOWN TOWNSHIP
SALEM COUNTY, NEW JERSEY
EPA I.D. NO. NJD011881174

GENERAL INFORMATION AND SITE HISTORY:

C.R. Warner, Incorporated (Warner) is located on a 2-acre parcel, Block 74, Lot 2-1, on East Lake Road in Woodstown Township, Salem County, New Jersey. The site is located in an area zoned agricultural/light industrial. The surrounding area is sparsely populated with the nearest residence located approximately 0.25 mile south of the facility. The population living within 1 and 4 miles of the site are estimated to be 2,250 and 21,360 persons, respectively.

Warner is a privately held corporation. Charles Warner obtained the Salem County property in 1972 from Franklin and Elva Evans who had owned the property since 1958. Prior to Warner's use of the property the site consisted solely of pasture. Historical aerial photographs indicate that no industrial activities were evident in the area prior to Warner's presence. The site is surrounded by undisturbed pasture.

C.R. Warner operated as a home heating oil provider from 1972 until 1982. In 1983 Warner began its current operation as a waste oil storage and reclamation facility.

SITE OPERATIONS OF CONCERN:

C.R. Warner, originally a home heating oil provider, began operations in 1972 offering No. 2 and No. 6 heating oil to the public until 1982. Warner currently operates as a waste oil storage and reclamation facility under RCRA permit No. 1709B1HO2. This permit was issued by the NJDEP, Division of Hazardous Waste Management (DHWM) Bureau of Hazardous Waste Engineering in March 1989. In May 1988, the company submitted RCRA Part A and B applications as required for reissuance of their hazardous waste permit. Warner previously operated under permit No. 1709B which was issued in 1983 and expired in 1988.

Three major structures exist at the facility; they house the administrative offices, the truck maintenance shed, boiler house and storage area, totaling 86,750 square feet.

The operation consists of purchasing recycled waste oils which do not meet specifications for waste-derived liquid fuel. The oil is processed at the Warner facility until it meets the necessary specifications for waste-derived liquids to be blended with virgin fuel for industrial burner use. All of Warner's products are sold to out-of-state blending facilities.

Waste oil is delivered to the facility in bulk trucks owned by Warner. These oils consist of selected waste oils having a maximum bottom sludge and water (BS&W) content of 20 percent. These oils include waste lubricating oils from gasoline stations and commercial businesses, tank cleanout from residential or commercial fuel oil

tanks, oil recovered from spill cleanup, metal working oils, turbine and diesel lubricating oils, and quench oils and waste oils from electric transformers having polychlorinated biphenyl (PCB) concentrations less than 50 parts per million (ppm). The above wastes represent New Jersey hazardous waste identification numbers X721 through X728. Non-hazardous wastes handled by the facility include ID-72, ID-73 liquids and nonregulated fuel oils.

The waste oils are unloaded on a concrete pad and pumped into the various tanks in the process system. Waste oil is reclaimed by the non-contact heating of oil with steam to promote the separation of water and solids from the oil. The resulting water from the waste oil is drawn off the bottom of the tank and pumped into the wastewater storage tank. The recovered oil is pumped into finished product tanks while any solids are drummed and stored for future removal.

Facility wastes consist of the following:

1. Filter residue and sludge is generated through the oil reclamation process. The sludge is transported under manifest as a hazardous waste to a permitted disposal facility.

2. Oil wastes are generated from laboratory samples and internal truck washings. These wastes are combined with incoming waste oils and recovered in the reclamation process.

3. The process wastewater recovered from the oil reclamation process is transported to an industrial wastewater treatment facility for disposal.

4. External truck washings and sanitary wastewater flow via a closed sewer into two concrete inground accumulation holding tanks. This wastewater is periodically removed to a municipal wastewater disposal plant.

The company does not dispose of any waste on site.

All operations on site take place within one of the three tank areas (A, B and C), the loading/unloading pad (adjacent to Tank Area B), the container storage area (within the truck maintenance shed) , the underground oil transfer line and the sanitary waste impoundment area.

All storage tanks are constructed of carbon steel and have a minimum shell thickness of 3/16 inch. Shell thickness testing is conducted at least every five years (or less if necessary) to ensure tank integrity.

Tank Area A is located on the southwest portion of the site and consists of one tank located within a diked containment area. The containment structure is comprised of a 6-inch reinforced concrete floor with 4-foot concrete block walls. The diked containment area was designed to hold the volume of Tank T-9, a 10,000-gallon wastewater tank.

Tank Area B consists of five aboveground tanks located within a diked containment area located in the northwest portion of the site. The containment area is comprised of 4-foot concrete block walls with a natural soil base which has a crushed gravel cover. Annual soil sampling is to be conducted in this area to monitor the potential for groundwater contamination from possible spills occurring during the year. The containment system was designed to hold the equivalent volume of the tanks located within this area. Any accumulated rain water is pumped from the containment area into Tank T-3, the wastewater storage tank.

T-1	42,000-Gallon Finished Product Tank
T-2	42,000-Gallon Finished Product Tank
T-3	42,000-Gallon Wastewater Tank
T-4	42,000-Gallon Insulated Heating Tank
T-5	42,000-Gallon Insulated Heating Tank

Tank Area C consists of three aboveground storage tanks located within, a diked containment area. This area is located on the southeast portion of Warner's property. The containment structure is comprised of a reinforced concrete floor with 4-foot concrete block walls. As described for Tank Area A, the diked containment area was designed to hold the volume of all tanks stored in the area.

T-6	10,000-Gallon Insulated Heating Tank
T-7	10,000-Gallon Insulated Heating Tank
T-8	10,000-Gallon Receiving Tank

The facility has an underground oil transfer line which lies between the storage tanks. The line, installed in 1983, is a 2-inch steel line, however, it is not coated or wrapped with any protective material. Storage capacity of the line is 46 gallons. When not in use, the line is isolated by block valves.

While there is no formal integrity testing of the line, daily inspections of the oil processing system are conducted at the facility checking for indications of structural failure, corrosion, leakage and/or mechanical failure. To date no record of oil leakage or spill has been associated with the line.

The Loading/Unloading Pad is adjacent to Tank Area B. This unit consists of a concrete pad which is sloped to collect spills and potential leaks. The sump has a pump to remove spilled oil to a storage tank. Also, the sump may be opened to allow oil to flow into the containment area of Tank Area B in case of a large spill. No staining or cracking was seen on this unit during a Pre-Sampling Assessment (PSA) conducted on November 3, 1989 by the NJDEP, DHWM, Bureau of Planning and Assessment.

Warner's Drum Storage Area is located within the truck maintenance shed. Here the company stores 55-gallon drums of their sludge/filter residue until removal under manifest to a permitted disposal facility.

It was noted during the PSA that less than five drums were stored in this area. Mr. Warner stated that fewer than ten drums are stored in this area at any time. Removal of drums occurs within 90 days of generation. Drums were stored on the concrete floor of the shed and appeared to be in good condition and properly labeled. Potential spills in this area are to the concrete floor and present no threat to the environment.

A closed sewer line for sanitary wastewater runs from the administration building to two inground tanks at the facility. No other connections to this line exist. The sewer line services the five people employed by C.R. Warner. The sanitary wastewater is removed from the facility by the C & H Sewage Company of Elmer, Salem County. Ultimate disposal of the wastewater is the Cumberland County Utilities Authority.

Warner utilizes two 1,000-gallon underground storage tanks which contain No. 2 fuel oil. These tanks do not fall under the authority of the NJDEP, Bureau of Underground Storage Tanks (BUST).

A November 3, 1989 PSA was conducted by the NJDEP, DHWM, Bureau of Planning and Assessment at the Warner Facility. All of the above areas were inspected at that time. No evidence of spills or discharges was present in the three tank areas. Tank conditions appeared good with the exception of Tanks T-4 and T-5, where a buckling of the outer insulating cover was noted. Management at the facility stated that this outer coating in no way affected the tank shell or its performance.

GROUNDWATER ROUTE:

Salem County is underlain by a southeastward-thickening wedge of generally unconsolidated deposits of Quaternary, Tertiary and Cretaceous Age. These deposits are composed of alternating clay, silt, sand and gravel and are underlain by crystalline metamorphic and igneous rocks of early Palezoic or Precambrian Age.

The Pensauken Formation occurs at altitudes of 40 to 120 feet above sea level. It is as much as 30 feet thick and consists of medium to coarse grained quartzose sand, some gravel and clay. This formation unconformably overlies the Cohansey Sand which is the uppermost Tertiary formation. The Cohansey is composed of white or light colored, medium to coarse grained stratified quartzose sand containing occasional lenses of gravel. It contains lenses of light colored clay that may be up to 25 feet thick. The depth of the Cohansey Sand in this area may be up to 200 feet. The Cohansey unconformably overlies the Kirkwood Formation which is primarily a clay that contains occasional fine-grained sand or shells. It has been estimated to have a maximum thickness of 275 feet. Both the Cohansey and the Kirkwood are recharged by precipitation in the outcrop area.

All of the facility's water needs are supplied by an on-site well. The depth of the well is 165 feet and it taps the Cohansey aquifer. Samples were not secured from this well. No monitor wells are present at the site.

There are numerous potable wells located within a 4-mile radius of the facility. These include wells of the Woodstown public supply system which serves approximately 2,950 people, and about 16 private wells with depths ranging from 60 to 335 feet. The nearest residential well is located approximately 0.25 mile south of the facility, well depth is 130 feet into the Cohansey Sand. Groundwater sampling has not been conducted at any of these wells. The potential for groundwater contamination from the facility does exist.

SURFACE WATER ROUTE

The facility is located on relatively flat ground which has a general elevation of approximately 40 feet above mean sea level (MSL). The surface area drains west toward the Nichomus Run, located approximately 0.25 miles from the site, then flows 4 miles to the northeast before entering the Salem River. The Salem River flows approximately 10 miles west to the Delaware River. The Nichomus Run and the Salem River are used for recreational purposes. The Salem River has been classified as FW-2 Nontrout waters. The Delaware River is not designated as a drinking water source in this area.

There are no wetlands located within 2 miles of the site.

C.R. Warner does not have a permit for discharge to to surface waters of the state.

AIR ROUTE

Warner has eight stacks associated with its storage tanks. These stacks are routinely monitored by the NJDEP, Division of Environmental Quality (DEQ). To date, no major violations have been associated with the stacks though the potential for unpermitted discharge is present. The stack certificate numbers are listed in Attachment G.

SOIL

As mentioned earlier Tank Area B, which houses five process tanks, is situated in a containment area with a natural soil base. This may represent a potential area of concern due to possible soil contamination resulting from spills or leaks of petroleum products during plant operations.

An evaluation of the soil profile beneath Tank Area B was conducted in November 1988 by Duffield Associates, Inc. of Wilmington, Delaware. The containment area is approximately 142 feet by 42 feet in size. The exploration of the soil profile was an attempt to verify that the soil in conjunction with the concrete block perimeter acted as an impermeable secondary containment system.

The field exploration consisted of five backhoe excavated test pits, nine hand auger borings and four Shelby tube samples. The report of the survey indicated that while the soil beneath the containment area did provide local confinement it did not demonstrate areal continunity to function as an impermeable liner system throughout the entire containment area. The Duffield report suggested that the facility either design and install a replacement liner system or patch the gaps in the low plasticity clay horizon of the soil.

Warner, as directed in their Hazardous Waste Permit, was required to analyze the soil in the containment area for total petroleum hydrocarbons annually.

A sampling episode conducted in May 1990 by Kaselaan & D'Angelo of Hadden Heights, New Jersey, for the facility, indicated that PHC contamination existed under Tank Area B. Contaminant levels detected ranged from not detected (ND) to 2,960 ppm. Based on these findings, the Warner facility is planning to excavate the four tanks, one at a time, remove all contaminated materials and place a liner system under the containment structure. Warner's workplan, once completed will be reviewed by the NJDEP, DHWM, Bureau of Hazardous Waste Engineering.

DIRECT CONTACT

There have been no reported incidents of direct contact with hazardous wastes on the site. The potential for such contact is low. The Warner facility is surrounded by a security fence and access to the site is controlled.

FIRE AND EXPLOSION

There have been no reported incidents of fire/explosion at the facility. Warner has maintained a safety relationship with the local fire company which includes drills and the sharing of pertinent site information. While the nature of the materials handled at the facility may pose a potential threat for fire/explosive conditions, the company appears prepared to handle emergency situations.

ADDITIONAL CONSIDERATIONS

No evidence of damage to local flora or fauna was observed as a result of Warner's operations at the site.

The potential that contamination of the food chain or that a negative impact to off-site property has occurred as a result of facility operations is low.

The following federal or state threatened or endangered species may be present in the general vicinity of the site; bog turtle, bald eagle, upland sandpiper, bobolink, savannah sparrow, grasshopper sparrow and the vesper sparrow.

ENFORCEMENT ACTIONS

To date no known enforcement actions have been associated with the facility.

SUMMARY OF SAMPLING DATA

1. Sampling date: May 1990

Sampled by: Kaselaan & D'Angelo
Associates, Inc.
Hadden Heights, NJ 08035

Samples:	Soil; Nine discrete, one composite. Aqueous; Three discrete, one composite.
Laboratory:	Analytical Associates Laboratory (A.A. Labs.Inc.) Plainsboro, New Jersey Lab Certification No. 12660
Parameters:	All samples analyzed for total petroleum hydrocarbons (TPHC), composite samples analyzed for polychlorinated biphenyls (PCBs) and priority pollutant metals.
Sample description:	Soil samples were collected at 6- and 18-inch depths. Composite sample taken at 6-inch depth. Aqueous samples were collected at a depth of 6 inches.
Contaminants detected:	Only antimony was detected above NJDEP action levels for metals with a concentration of 16.8 ppm. No PCBs were detected in any of the samples. Levels of TPHCs above NJDEP action levels were detected in samples S-4a, S-4b and S-5a at concentrations ranging between 401 and 2,960 ppm as seen below.

TOTAL PETROLEUM HYDROCARBONS — UNITS: PPM

Sample ID	Results
S - 1A	ND
S - 1B	ND
S - 2A	ND
S - 2B	19.2
S - 3A	20.2
S - 3B	31.7
S - 4A	401
S - 5A	592
S - 6A	2,960
S - 4B aqueous	759

S - 5B aqueous	25.7
S - 6B aqueous	7.44

QA/QC: No QA/QC data was submitted to the NJDEP.

File location: Attachment E
NJDEP, DHWM, BHWE
Trenton, New Jersey

RECOMMENDATIONS / CONCLUSIONS

The C.R. Warner facility is permitted under the Resource Conservation and Recovery Act (RCRA) and as such is subject to regular compliance inspections by the NJDEP, DHWM, Bureau of Southern Enforcement (BSE). In addition, the facility is developing a work plan to address the PHC contamination detected under Tank Area B.

The facility is planning to hire a consulting/contracting firm to remove the existing tanks in Tank Area B and address the inadequacies of the containment structure. The DHWM, Bureau of Hazardous Waste Engineering (BHWE) has been working with the C.R. Warner facility and will review all workplans before remedial work begins at the site.

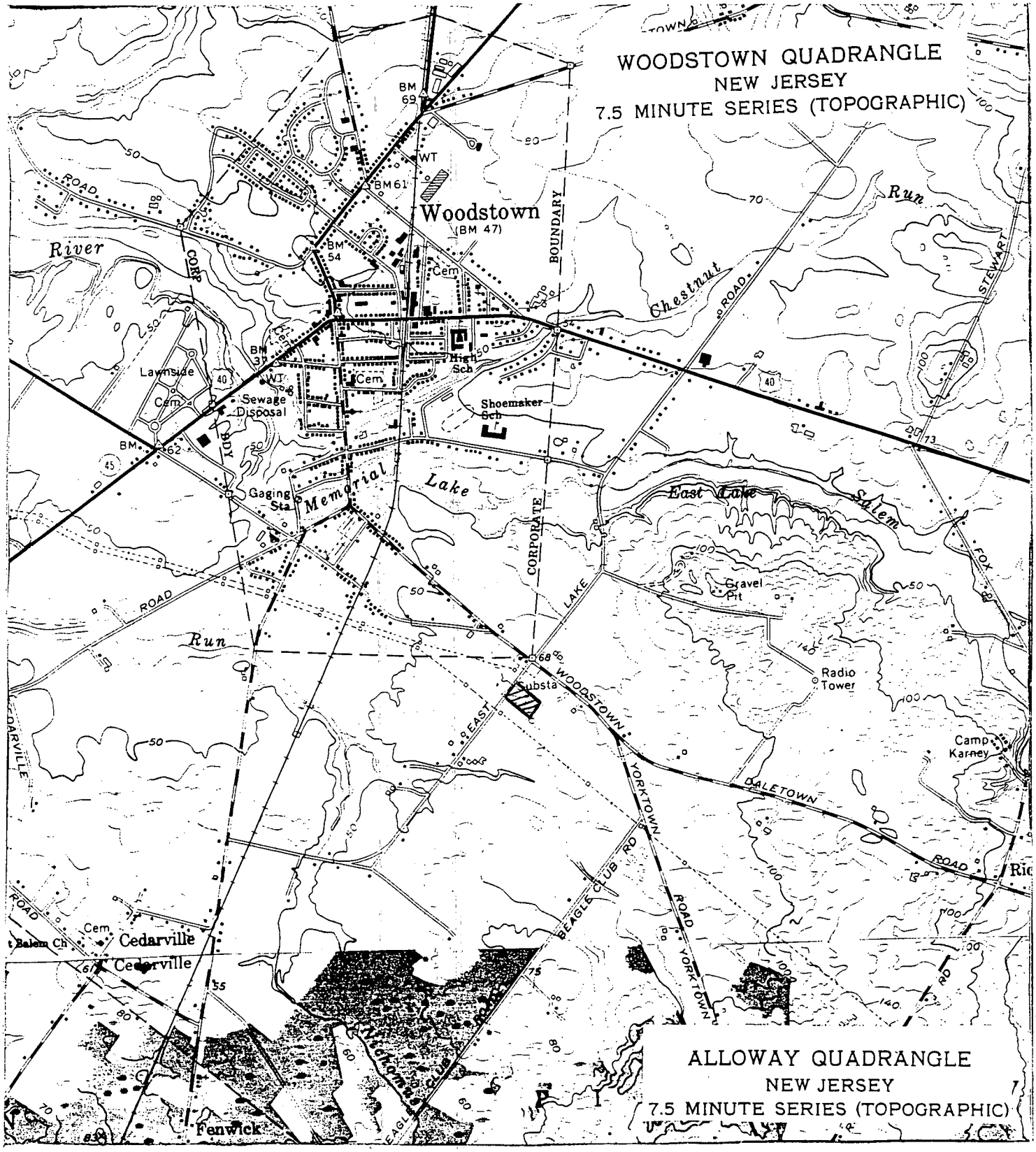
Sampling at the Warner facility was not conducted by the NJDEP, DHWM, BPA since Warner intended to sample Tank Area B as directed in their NJDEP Hazardous Waste Permit. Tank Area B was sampled by Warner in May 1990 and additional sampling is planned for this area.

The site is exempt from further action under CERCLA based on the need for remediation of only petroleum based products at the Warner facility and the oversight being provided by the NJDEP, DHWM, BHWE. Therefore, no further action is warranted by the NJDEP, BPA at the Warner facility. The company has consistently been in compliance with their RCRA permit requirements and there is no history of hazardous spills occurring at the plant.

Submitted by:

Clare Whittaker, HSMS II
NJDEP, Bureau of Planning and Assessment
October 15, 1990

MAPS



C. R. WARNER
EAST LAKE ROAD
WOODSTOWN TOWNSHIP
SALEM COUNTY, NEW JERSEY
EPA I.D. NO. NJD011881174

LAT. 39° 38' 14" LONG. 75° 19' 10"

SCALE 1:24 000

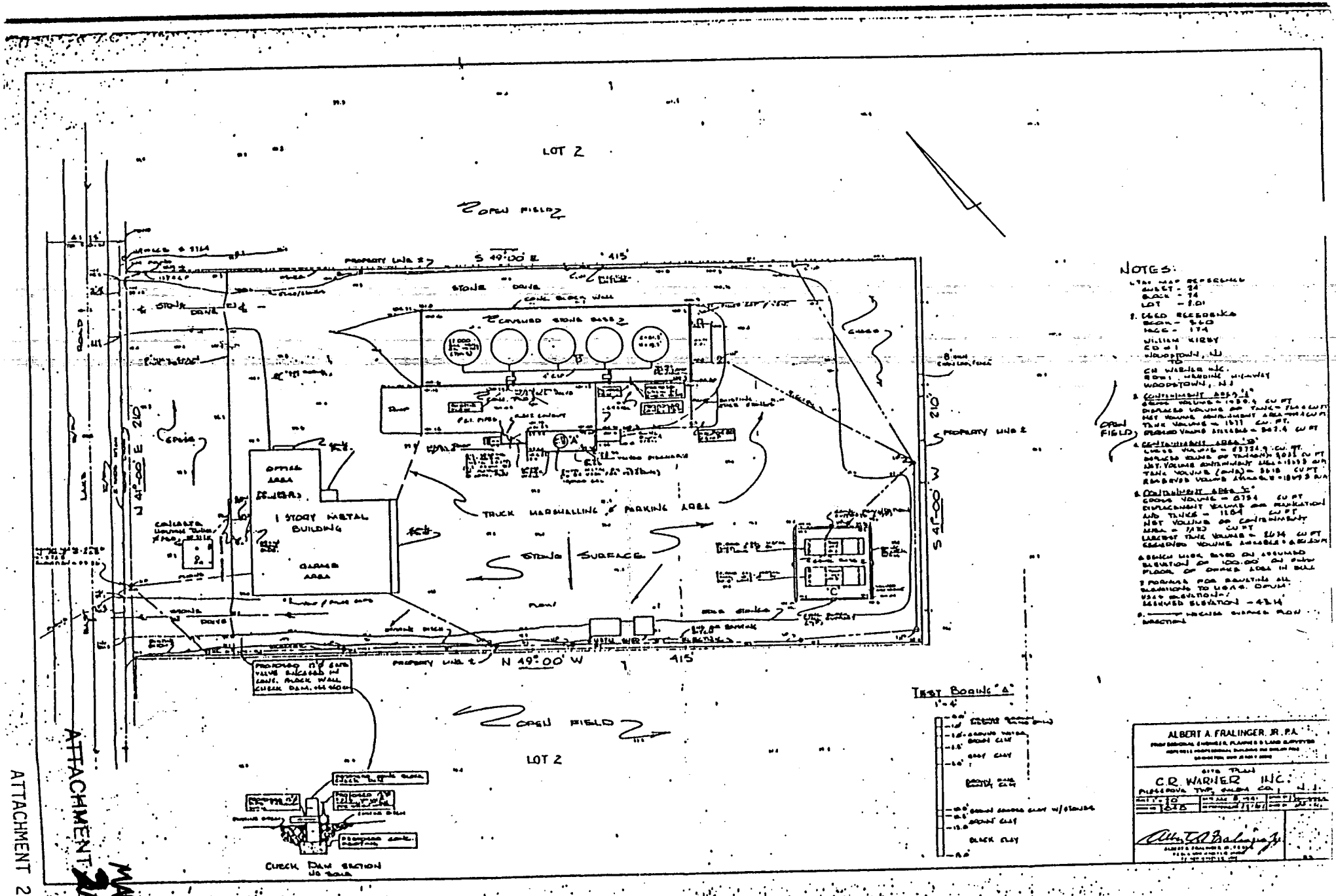
1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

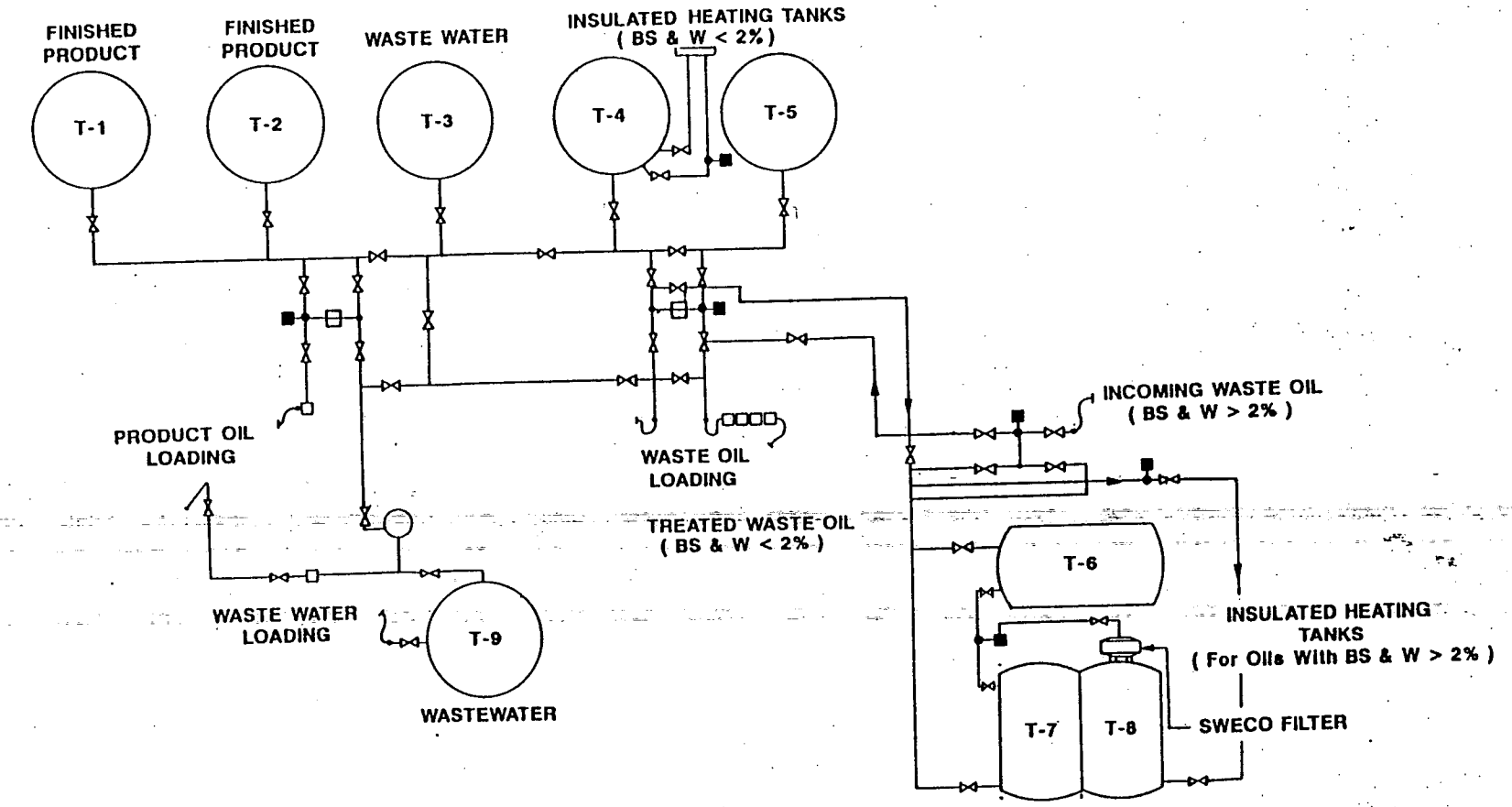
ATTACHMENT MAP1



ATTACHMENT 2

ATTACHMENT 2A

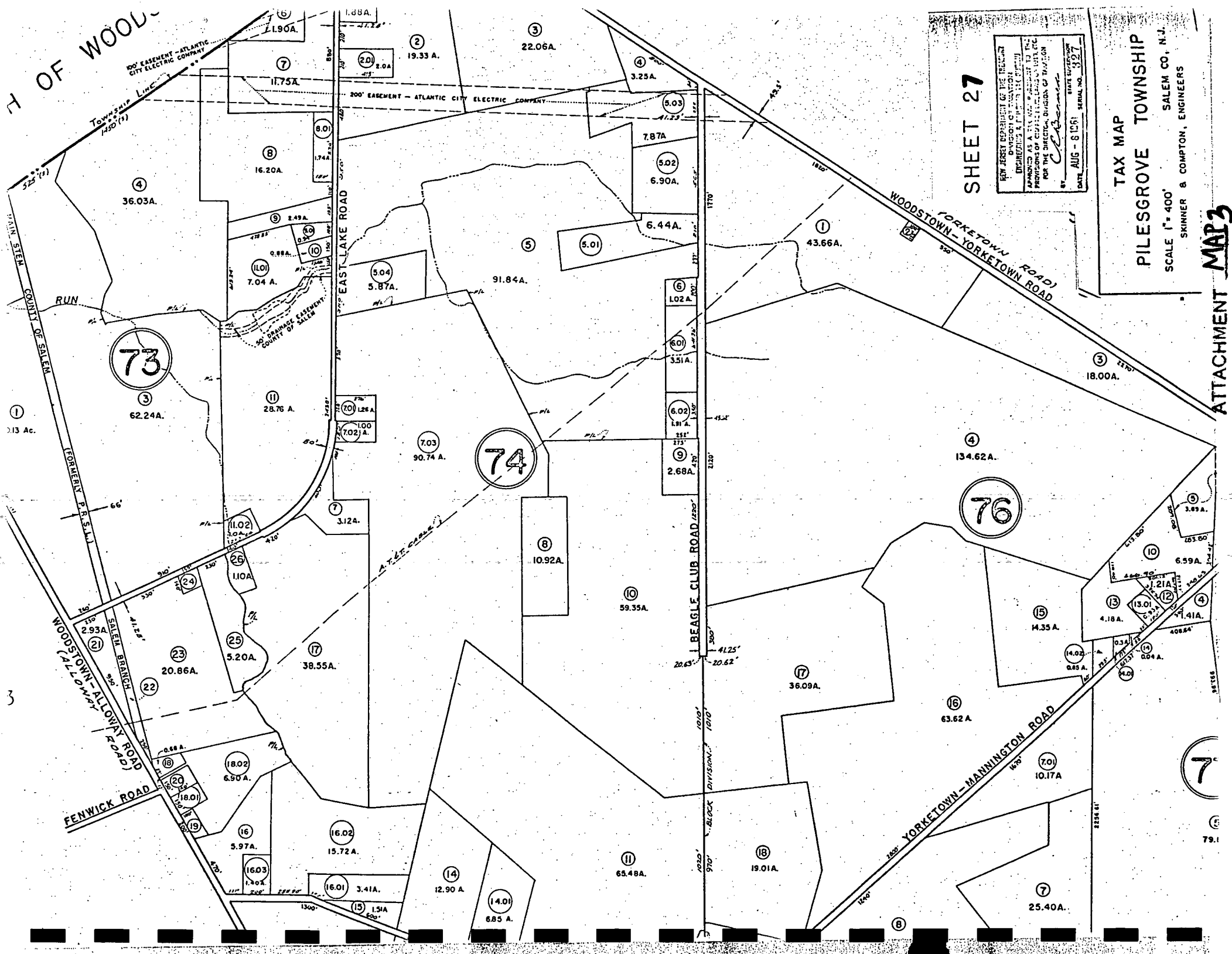
ATTACHMENT 2B

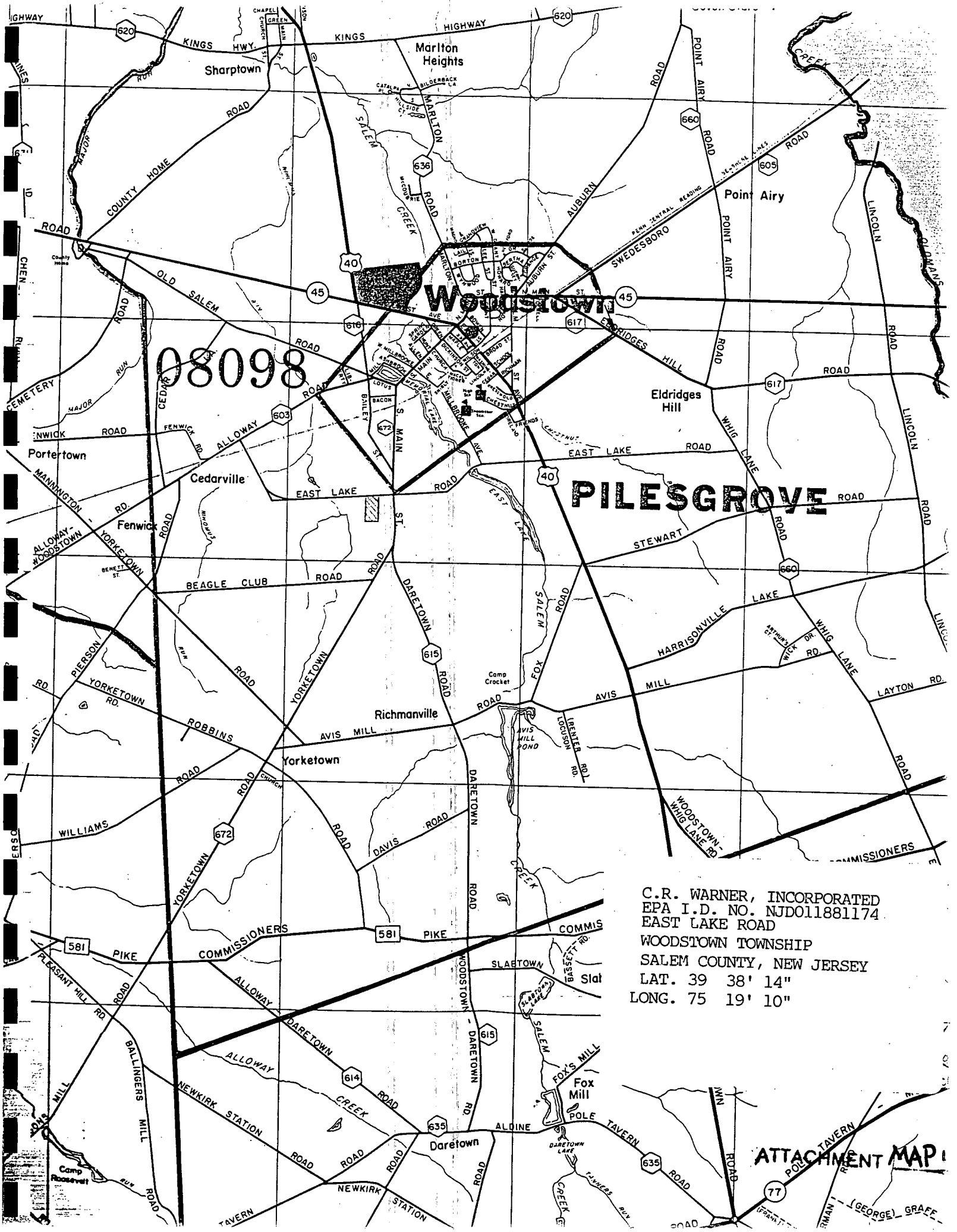


Process Flow Schematic
C.R. WARNER, INC.

K&D

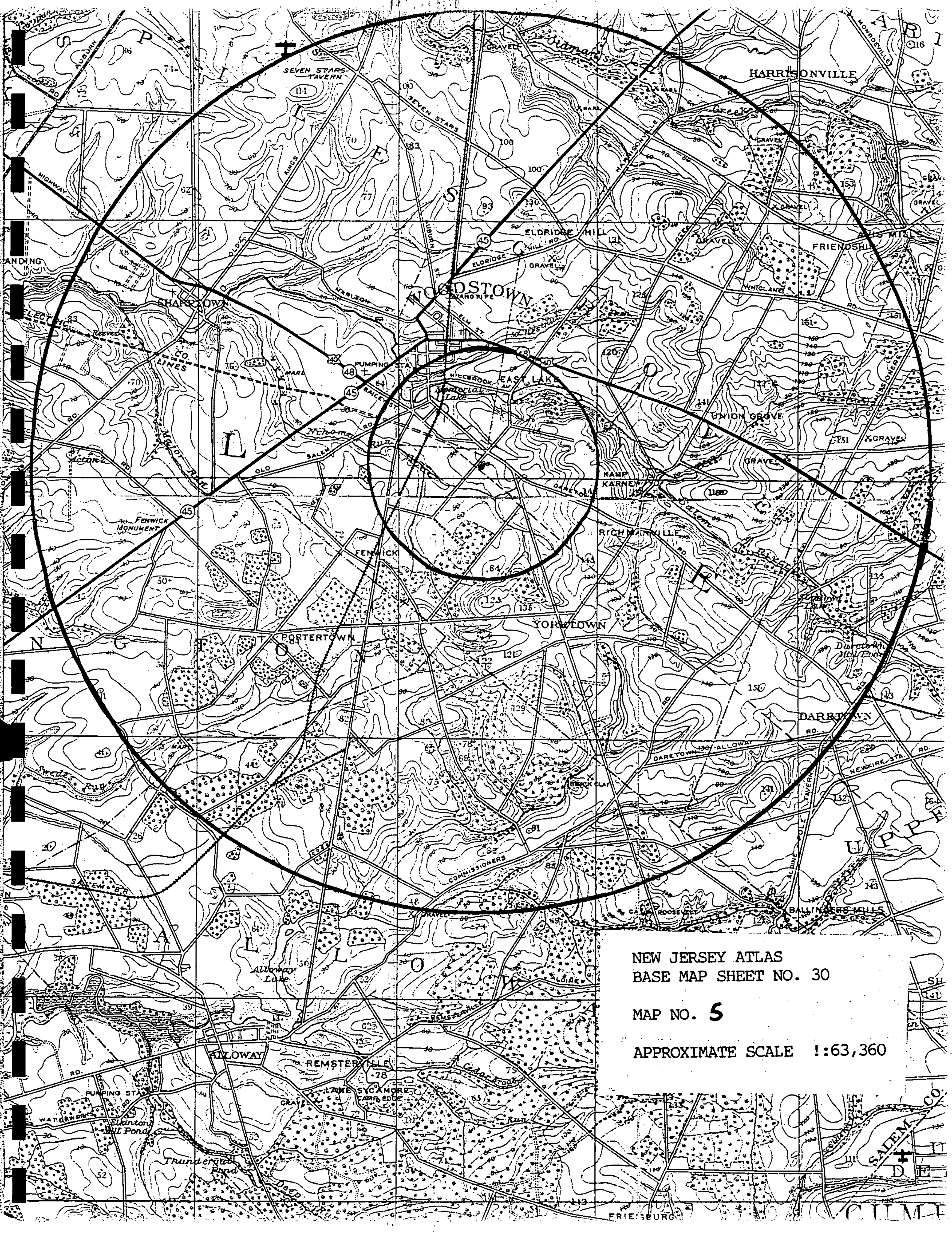
APPENDIX B


SHEET 27
TAX MAP
PILESGROVE TOWNSHIP
SCALE 1" = 400'
SALEM CO., N.J.
SKINNER & COMPTON, ENGINEERS
ATTACHMENT MAP 3
NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
ENGINEERING & PROPERTY CONTROL
APPROVED AS A TAX MAP PURSUANT TO THE PROVISIONS OF CHAPTER 185, P.L. 1948, AS AMENDED
FOR THE DIRECTOR, DIVISION OF TAXATION
BY
DATE AUG - 8 1961
STATE SUBDIVISION SERIAL NO. 3327
100' EASEMENT - ATLANTIC CITY ELECTRIC COMPANY
200' EASEMENT — ATLANTIC CITY ELECTRIC COMPANY
TOWNSHIP LINE
MAIN STEM
RUN
EAST LAKE ROAD
WOODSTOWN-YORKETOWN ROAD
YORKETOWN-MANNINGTON ROAD
WOODSTOWN-ALLOWAY ROAD (ALLOWAY ROAD)
FENWICK ROAD
BEAGLE CLUB ROAD
SALEM BRANCH
COUNTY OF SALEM
(FORMERLY P.R.S.R.R.)
DRAINAGE EASEMENT COUNTY OF SALEM
A.T.&T. CABLE
BLOCK DIVISION
73
74
76
1.88A.
1.90A.
19.33 A.
22.06A.
3.25A.
11.75A.
7.87A.
6.90A.
6.44A.
16.20A.
36.03A.
91.84A.
43.66A.
18.00A.
62.24A.
28.76 A.
7.04 A.
5.87A.
3.51A.
2.68A.
90.74 A.
3.12A.
134.62A.
10.92A.
59.35A.
6.59A.
1.21A.
4.18A.
1.41A.
14.35 A.
2.93A.
20.86A.
5.20A.
38.55A.
36.09A.
63.62 A.
10.17A.
6.90 A.
5.97A.
15.72A.
65.48A.
19.01A.
12.90 A.
6.85 A.
3.41A.
1.51A.
25.40A.
1.10A.
0.13 Ac.



C.R. WARNER, INCORPORATED
EPA I.D. NO. NJD011881174
EAST LAKE ROAD
WOODSTOWN TOWNSHIP
SALEM COUNTY, NEW JERSEY
LAT. 39 38' 14"
LONG. 75 19' 10"

ATTACHMENT MAP



NEW JERSEY ATLAS
BASE MAP SHEET NO. 30

MAP NO. 5

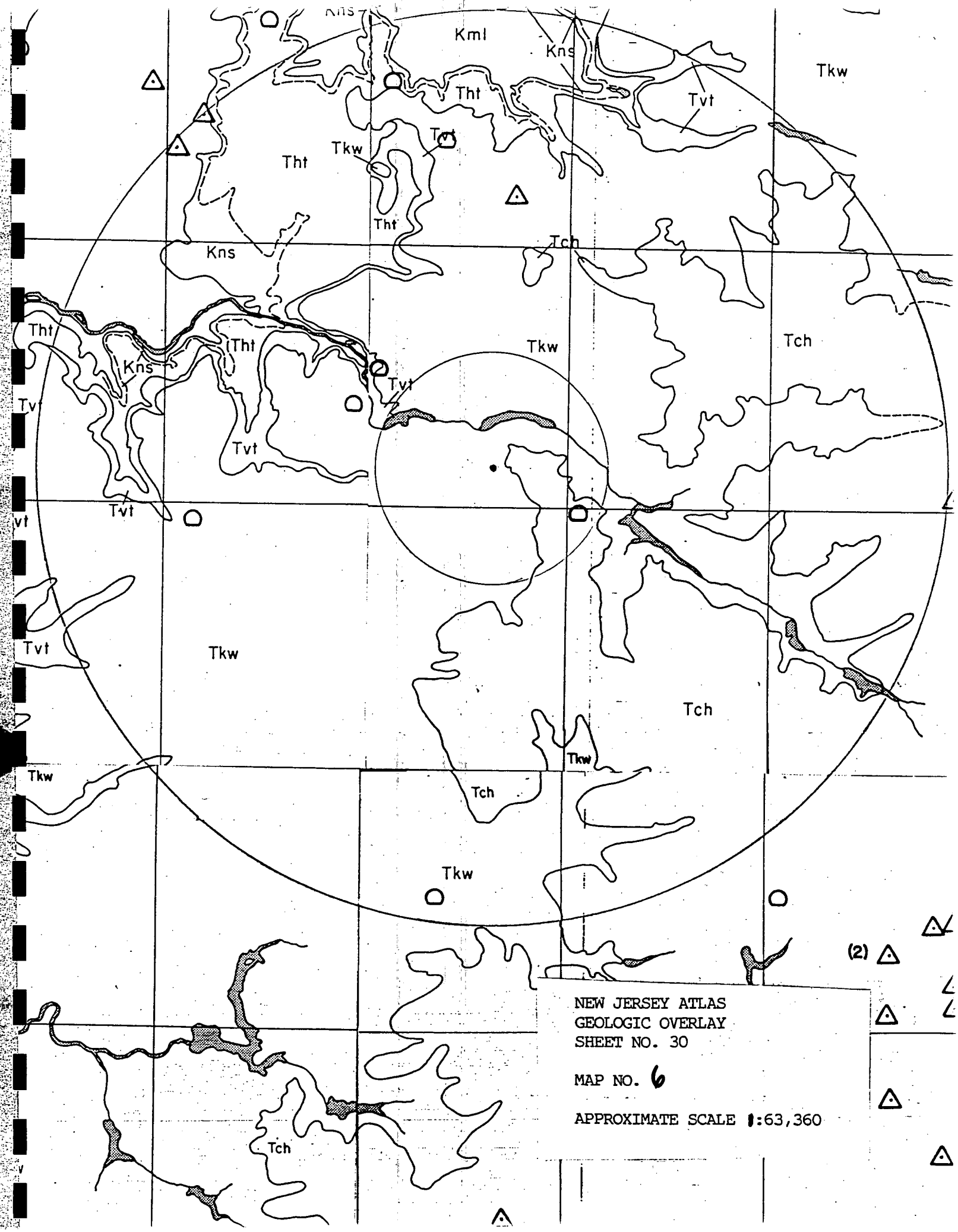
APPROXIMATE SCALE 1:63,360

LEGEND FOR ATLAS SHEET 30

	COUNTY OR STATE BOUNDARY
	MUNICIPAL BOUNDARY
( )	POPULATION DENSITY IN PERSONS PER SQUARE MILE
[ ]	AREA IN SQUARE MILES
%	PERCENT AREA OF MUNICIPALITY ON BLOCK
	DRAINAGE BASIN BOUNDARY
	RIVER BASIN BOUNDARY
HUDSON	DRAINAGE BASIN NAME
	AREA SERVED BY PUBLIC WATER AND SEWAGE SEWAGE
	AREA SERVED BY PUBLIC WATER SUPPLIES ONLY
	AREA SERVED BY SEWAGE SERVICE ONLY
	EXISTING PONDS, LAXES, AND RESERVOIRS
	SANITARY LANDFILLS
	SEWAGE TREATMENT PLANTS
——S——	MAJOR SEWAGE TRANSMISSION LINES
——W——	MAJOR WATER PIPELINES

ALL MAP COORDINATES ARE FOR THE LOWER LEFT HAND CORNER

SCALE 1 INCH = 1 MILE



NEW JERSEY ATLAS
GEOLOGIC OVERLAY
SHEET NO. 30

MAP NO. 6

APPROXIMATE SCALE 1:63,360

LEGEND FOR ATLAS SHEET

△ INDUSTRIAL WELL YIELD OVER 70 GALLONS PER MINUTE

□ PUBLIC SUPPLY WELL YIELDING OVER 70 GALLONS PER MINUTE

⊕ UNSUCCESSFULL ROCK WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

⊙ UNSUCCESSFULL SAND WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

⊡ NO TEST – NO DATA ON YIELD

——— FAULT (DASHED WHERE INFERRED)

——— CONTACT (DASHED WHERE INFERRED)

PIEDMONT / COASTAL PLAIN PHYSIOGRAPHIC PROVINCE BOUNDARY

WATER SUPPLY TRANSMISSION LINE

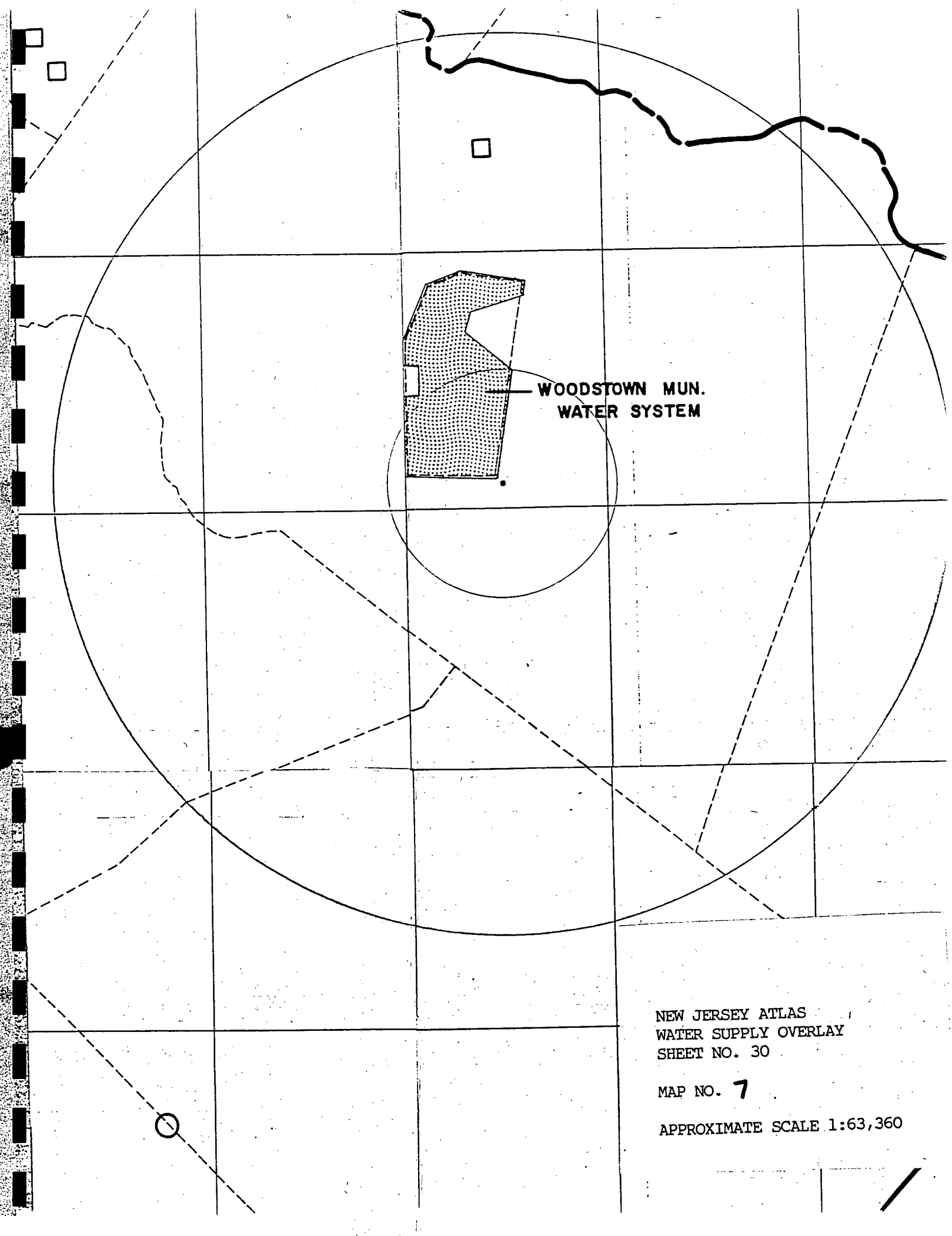
SEDIMENTARY ROCKS

TERTIARY

Tbh	BEACON HILL GRAVEL
Tch	COHANSEY SAND
Tkw	KIRKWOOD SAND
Tmq	MANASQUAN MARL
Tvt	VINCENTOWN SAND
Tht	HORNERSTOWN MARL

CRETACEOUS

Krb	RED BANK
Krbt	RED BANK (TRANSITIONAL UNIT)
Krbg	RED BANK (GLAUCONITE SAND UNIT)
Kns	NAVESINK MARL
Kml	MOUNT LAUREL SAND
Kw	WENONAH SAND
Kmt	MARSHALLTOWN FORMATION
Ket	ENGLISHTOWN SAND
Kwb	WOODBURY CLAY
Kmv	MERCHANTVILLE CLAY
Kmr	MAGOTHY AND RARITAN FORMATIONS
Km	MAGOTHY FORMATION
Kr	RARITAN FORMATION

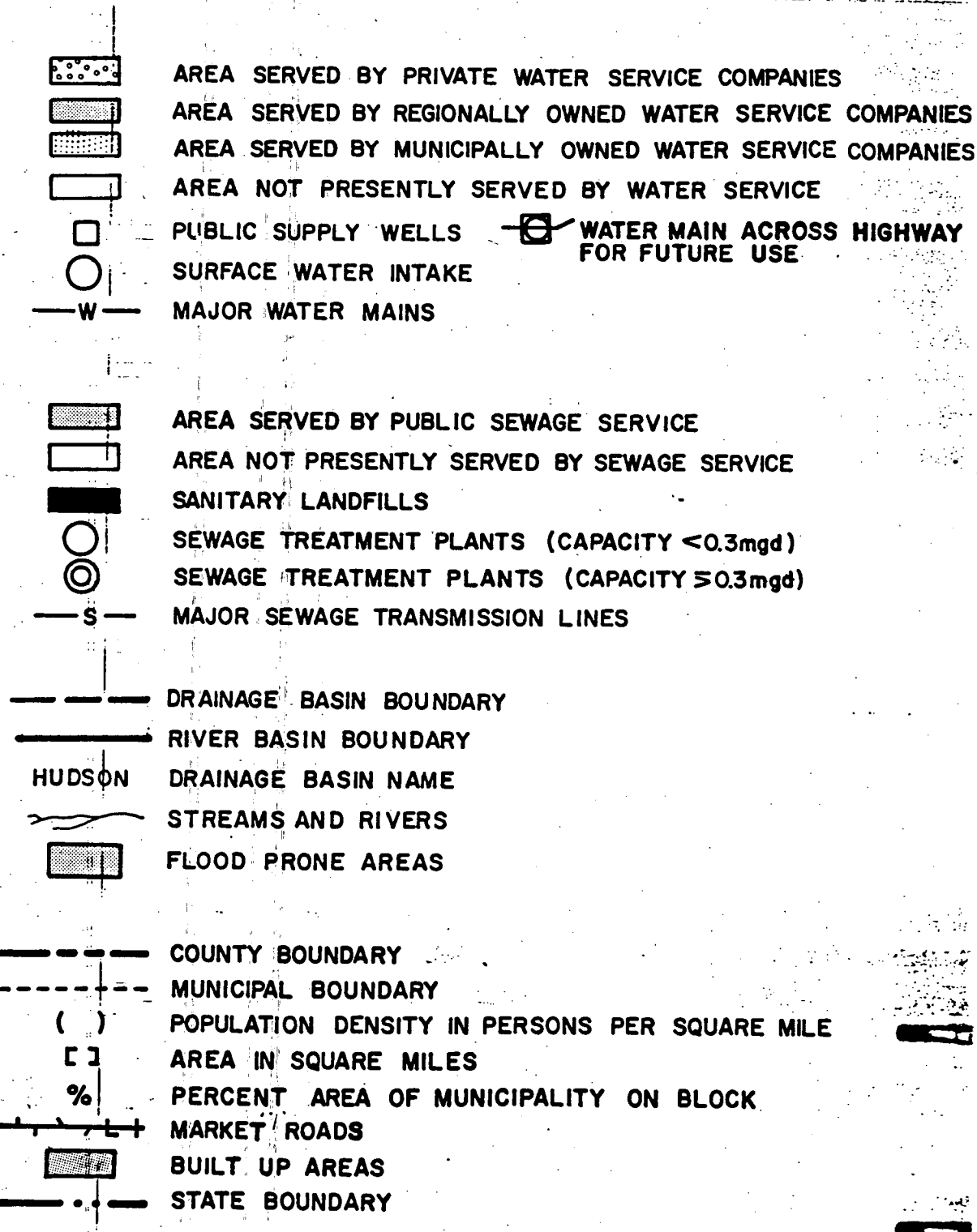


NEW JERSEY ATLAS
WATER SUPPLY OVERLAY
SHEET NO. 30

MAP NO. 7

APPROXIMATE SCALE 1:63,360

LEGEND


WATER SUPPLY
AREA SERVED BY PRIVATE WATER SERVICE COMPANIES
AREA SERVED BY REGIONALLY OWNED WATER SERVICE COMPANIES
AREA SERVED BY MUNICIPALLY OWNED WATER SERVICE COMPANIES
AREA NOT PRESENTLY SERVED BY WATER SERVICE
PUBLIC SUPPLY WELLS
WATER MAIN ACROSS HIGHWAY FOR FUTURE USE
SURFACE WATER INTAKE
W
MAJOR WATER MAINS
SEWAGE, LANDFILL
AREA SERVED BY PUBLIC SEWAGE SERVICE
AREA NOT PRESENTLY SERVED BY SEWAGE SERVICE
SANITARY LANDFILLS
SEWAGE TREATMENT PLANTS (CAPACITY <0.3mgd)
SEWAGE TREATMENT PLANTS (CAPACITY ≥0.3mgd)
S
MAJOR SEWAGE TRANSMISSION LINES
DRAINAGE BASIN
DRAINAGE BASIN BOUNDARY
RIVER BASIN BOUNDARY
HUDSON
DRAINAGE BASIN NAME
STREAMS AND RIVERS
FLOOD PRONE AREAS
POPULATION
COUNTY BOUNDARY
MUNICIPAL BOUNDARY
( )
POPULATION DENSITY IN PERSONS PER SQUARE MILE
[ ]
AREA IN SQUARE MILES
%
PERCENT AREA OF MUNICIPALITY ON BLOCK
MARKET ROADS
BUILT UP AREAS
STATE BOUNDARY

BLOCK #30-33 9/76

A. Alloway, Salem, Penns Grove, Woodstown

B. Delaware River-Alloways, Oldmans Creek, Salem Creek

C. 2. Map No. 404 Location: Branch of Salem Creek nr. Woodstown — Period of Record: 9/1/40

3. 343 Salem River at Sharptown — Period of Record: 1965-

Water Quality Standards: (explained in Atlas Sheet description)
FW2, TW1 except where classified FW3

D. Kirkwood Sand (Tkw), Vincentown Sand (Tvt), Hornerstown Marl (Tht), Navesink Marl (Kns), Mount Laurel Sand (Kml), Mount Laurel and Wenonah Sands (undifferentiated) (Kmw), Marshalltown Formation (Kmt), Woodbury Clay (Kwb)

E. 1. Physiographic Province: Coastal Plain
Subdivision: Inner Plain, Outer Plain
Major Topographic Features: Clay and Marl Region, Pine Plains
Elevations (ft.above sea level): hills 125, valleys 0
Relief (ft.): 125

2. a. Normal Year: 45"
Dry Year: 31"

b. January: 34°F
July: 76°F

c. 250 days. Last killing frost: 4/20; first killing frost: 10/25

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
30-33-187	E.I.DuPont deNemours Co.,Inc.	1966	381/457	457	754	Kmr
30-33-215	N.J. Turnpike Auth.	1953	-	345	-	"
30-33-219	"	1953	-	334	-	Kr
30-33-263	DuBois Bros.	1966	276/356	356	400	Kmr
30-33-325	B. Cheesman	Prior to 1897	-	301	-	"
30-33-345	Kelly Bros.	1954	45/65	65	125	Kmw
30-33-347	DuBois Bros.	1974	337/362	422	500	Kmr
30-33-429	E.I.duPont deNemours Co.,Inc.	1966	445/601	601	500	Kmr
30-33-431	"	1966	387/627	637	750	"
30-33-669	American Stores Co.	1960	556/571	575	40	Kr
30-33-711	Mannington Twp.Bd.of Ed.	1959	47/none	92	75	Kms
30-33-912	Salem Co. Home	1958	361/367	370	50	Kmr

J. Geodetic Control Survey monuments described in Index Maps 59,60; adjacent Index Maps 65,66

BLOCK #30-34,35

A. Alloway, Elmer, Pitman West, Woodstown

B. Delaware Bay-Maurice River; Delaware River-Alloways, Oldmans Creek, Raccoon Creek, Salem Creek

C. 1. Woodstown - Non-recording temperature and precipitation gauges

2.

Map No.	Location	Period of Record
401	Oldmans Creek at Jessups Mills	1/9/40
403	Salem Creek at Woods Mill	1/9/40
406	Salem River at Woodstown	1940-

Water Quality Standards: (explained in Atlas Sheet description)
FW2 except where classified FW3

D. Cohansey Sand (Tch), Kirkwood Sand (Tkw), Vincentown Sand (Tvt), Hornerstown Marl (Tht), Navesink Marl (Kns), Mount Laurel Sand (Kml)

E. 1. Physiographic Province: Coastal Plain
Subdivision: Outer Plain
Major Topographic Features: Pine Plains
Elevations (ft.above sea level): hills 150, valleys 10
Relief (ft.): 150

2. a. Normal Year: 46"
Dry Year: 32"
b. January: 34°F
July: 76°F
c. 250 days. Last killing frost: 4/20; first killing frost: 10/25

F. Div. of Fish, Game and Shell Fisheries:
Harrisonville Lake

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
30-34-141	Kelly Bros.	1960	485/500	510	20	Kmr
30-34-157	U.S. Government	1958	-	718	-	Kr
30-34-194	Hillside Orchards	1969	97/130	140	800	Kmw
30-34-444	Borough of Woodstown	1957	-	694	-	Kmr
30-34-698	John Kernan	1958	24/54	58	100	Kmt
30-34-811	Howard H. Kirby	1958	125/none	147	20	Tvt
30-35-477	John Kernan	1966	30/52	52	85	Tkw
30-35-477	"	1966	16/36	36	400	"
30-35-495	Walter Kern, Jr.	1964	19/80	80	990	"
30-35-743	Upper Pitts Grove Sch.Bd.	1962	357/367	367	75	Kmw
30-35-776	B. Franklin Bishop	1965	20/72	72	438	Tkw

J. Geodetic Control Survey monuments described in Index Maps 60,66

BLOCK #30-43 9/76

A. Alloway, Salem

B. Delaware River-Alloway, Salem Creek

C. 2.

Map No.	Location	Period of Record
407	Unnamed Branch of Alloway Creek nr. Alloway	1/9/40
408	Unnamed Branch of Alloway Creek at Alloway	1/9/40
409	Alloway Creek at Alloway	1952-

3. 344 Alloways Creek at Quinton 1965-

Water Quality Standards: (explained in Atlas Sheet description) FW2, TW1

D. Cohansey Sand (Tch), Kirkwood Sand (Tkw), Vincentown Formation (Tvt), Hornerstown Marl (Tht)

E. 1. Physiographic Province: Coastal Plain
Subdivision: Outer Plain
Major Topographic Features: Pine Plains
Elevations (ft.above sea level): hills 100, valleys 0
Relief (ft.): 100

2. a. Normal Year: 44"
Dry Year: 30"

b. January: 34°F
July: 76°F

c. 250 days. Last killing frost: 4/20; first killing frost: 10/25

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
30-43-187	Battleground Farms	1966	140/180	180	80	Kmw
30-43-458	H. K. Johnson	1947	-	108	-	Tvt

J. Geodetic Control Survey monuments described in Index Maps 65,66; adjacent Index Maps 71,72

BLOCK #30-44,45

9/76

A. Alloway, Elmer

B. Delaware Bay-Cohansey Creek, Maurice River; Delaware River-Alloways, Salem Creek

C. Water Quality Standards: (explained in Atlas Sheet description)
FW2 except where classified FW3

D. Quaternary Gravel (Qg), Cohansey Sand (Tch), Kirkwood Sand (Tkw)

E. 1. Physiographic Province: Coastal Plain
Subdivision: Outer Plain
Major Topographic Features: Pine Plains
Elevations (ft.above sea level): hills 160, valleys 30
Relief (ft.): 130

2. a. Normal Year: 45"
Dry Year: 31"
Wet Year: 46"

b. January: 34°F
July: 76°F

c. 250 days. Last killing frost: 4/20; first killing frost: 10/25

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
30-44-154	David Blacklock	?	-	235	-	Tvt
30-44-344	W. T. Richman	1897	-	405	-	Kmw
30-44-368	Johnson Cooper	1967	4/84	88	450	Tch,Tkw
30-44-369	Norman Brooks	1965	22/74	74	512	" "
30-44-383	W. Harold Smith	1964	18/82	82	488	" "
30-44-383	"	1967	22/78	78	433	" "
30-44-389	Hiram Strang	1966	33/85	85	650	" "
30-44-396	George Coombs	1968	4/84	84	500	" "
30-44-399	Sea Brook Farms	1966	35/65	65	690	" "
30-44-491	Donald C. Garrison	1967	4/84	84	600	" "
30-44-531	Joe Hetzer	1967	4/54	54	200	" "
30-44-629	George Coombs	1964	20/80	80	420	" "
30-44-665	Leon M. Tice	1965	36/96	96	831	" "
30-45-167	Maurice D. English	1972	54/84	84	500	Tch
30-45-174	William N. Brooks, Jr.	1972	63/93	93	400	Tch
30-45-175	George Coombs	1967	4/88	88	800	Tch,Tkw
30-45-417	"	1965	20/80	80	1056	" "
30-45-467	B. Zaitz & Sons	1967	44/116	116	672	" "
30-45-448	Ivan Garrison	1968	4/44	44	900	" "
30-45-472	Seabrook Farms	1964	46/106	106	1150	" "
30-45-492	Walter Kern, Jr.	1966	24/84	84	1130	" "

J. Geodetic Control Survey monuments described in
Index Map 66, adjacent Index Map 72 Index Map 72

UBJECT TO REVISION

WATER WITHDRAWAL
OINTS AND
JGS CASE INDEX
ITES WITHIN
5.0 MILES OF:

LATITUDE 393814
ONGITUDE 751910

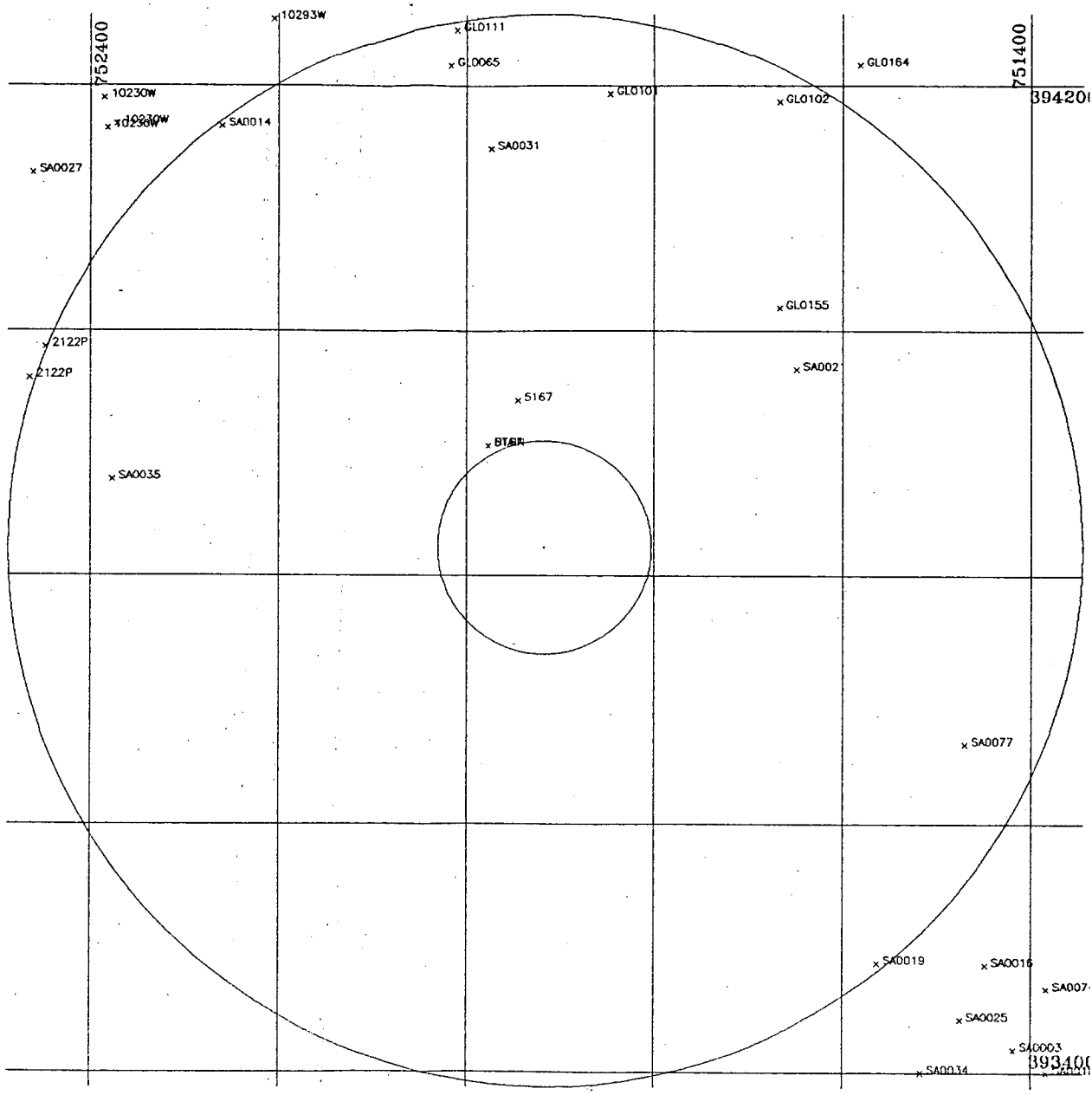
DRAFT

SCALE: 1:63,360
(1 Inch = 1 Mile)

× WATER WITHDRAWAL POINTS
NJGS CASE INDEX SITES
MILE AND 5 MILE RADII INDICATED

S CASE INDEX DATA RETRIEVED FROM:
W JERSEY GEOLOGICAL SURVEY
12/22/87

T PRODUCED BY:
DEP
DIVISION OF WATER RESOURCES
BUREAU OF WATER ALLOCATION
CN-029
TRENTON, NJ 08625
E: 05/23/90



SUBJECT TO REVISION

ATTACHMENT MAP 8

 PRELIMINARY SURVEY OF WATER WITHDRAWAL POINTS WITHIN 5.0 MILES OF 393814 LAT. 751910 LON. (IN ORDER BY DECREASING LONGITUDE) - 05/23/90

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
2122P	E.I. DUPONT DENEMOURS & CO.	3001081	CL-P1	393937	752439	F	5.1	33	13	614	GKMR		500
SA0027	PIDGEON, WALTER	STREAM 1		394117	752437	U	5.9	33			SDSAL		
SA0027	PIDGEON, WALTER	POND 1		394117	752437	U	5.9	33			SDSAL		
2122P	E.I. DUPONT DENEMOURS & CO.	3001082	CL-P2	393952	752429	F	5.0	33	13	636	GKMR		500
10230W	NEW JERSEY TURNPIKE AUTHORITY	3000206	S #1	394154	752351	F	5.9	33	06	374	GKMR		250
10230W	NEW JERSEY TURNPIKE AUTHORITY	3000067	N#1	394139	752349	F	5.7	33	06	337	GKMR		250
SA0035	LILLYA, MARTIN	STREAM 1		393847	752346	U	4.1	33			SDSAL		
SA0035	LILLYA, MARTIN	POND 1		393847	752346	U	4.1	33			SDSAL		
10230W	NEW JERSEY TURNPIKE AUTHORITY	3000229	N #2	394141	752343	F	5.6	33	13	330	GKMR		250
SA0014	DUBOIS BROTHERS	WELL 1		394140	752236	U	5.0	33			GKMR		
SA0014	DUBOIS BROTHERS	POND 1		394140	752236	U	5.0	33			SDSAL		
10293W	OLDMANS TOWNSHIP WATER DEPT.	3001151	1	394233	752203	F	5.6	33	06	206	GKMR		250
GL0065	NO LONGER FARMS	POND 1		394210	752010	U	4.6	15			SDOLD		
GL0111	RIZZI, JOSEPH H.	STREAM 1		394228	752006	U	4.9	15			SDOLD		
5167	WOODSTOWN BOROUGH	5000038	WELL NO 2	393904	751946	F	1.1	44	15	710	GKR		
PTAIN	UNION COUNTY UTILITIES AUTH.	5000038	WELL NO 2	393904	751946	F	1.1	33	15	705	GKMR		425
SA0031	TOMARCHIO, ALFIO	STREAM 1		394129	751944	U	3.8	33			SDOLD		
167	WOODSTOWN BOROUGH	3001441	WELL NO 3	393926	751927	F	1.4	33	15	712	GKR		600
GL0101	SORBELLO, THOMAS & FRANK	STREAM 1		394156	751928	U	4.3	15			SDOLD		
GL0101	SORBELLO, THOMAS & FRANK	WELL 1		394156	751828	U	4.3	15			GTCH		
GL0101	SORBELLO, THOMAS & FRANK	POND 1		394156	751828	U	4.3	15			SDOLD		
GL0102	MARINO BROTHERS, INC.	STREAM 1		394152	751640	U	4.7	15			SD		
GL0102	MARINO BROTHERS, INC.	WELL 1		394152	751640	U	4.7	15			GTKW		
GL0102	MARINO BROTHERS, INC.	POND 1		394152	751640	U	4.7	15			GTKW		
GL0155	STONY KNOLL ORCHARDS	POND 1		394011	751640	U	3.1	15			SD		
SA0021	MUSUMECI, SAMUEL F.	STREAM 1		393941	751629	U	2.9	33			SDOLD		
GL0164	ROMEO, JOSEPH	WELL 1		394210	751549	U	5.4	15			GTKW		
SA0019	WILSON BROTHERS FARMS	STREAM 1		393453	751528	U	4.9	33			SDALL		
SA0034	COLEMAN, MEREDITH	POND 1		393400	751510	U	6.0	33			SECOH		
SA0025	MELCHERT, RICHARD	WELL 1		393425	751445	U	5.8	33			GTCH		
SA0077	HACKETT, QUINTON	POND 1		393638	751442	U	4.3	33			SDSAL		
SA0016	COOPER, JOHNSON B.	WELL 1		393452	751429	U	5.6	33			GTCH		
SA0003	SALEM FARMS CORP.	STREAM 1		393411	751411	U	6.4	33			SDMAU		
SA0003	SALEM FARMS CORP.	POND 1		393411	751411	U	6.4	33			SDMAU		
SA0018	COOMES, JOHN H.	WELL 1		393400	751350	U	6.7	33			GTCH		
SA0074	BROOKS, WILLIAM N. JR	WELL 1		393440	751350	U	6.2	33			GTCH		

Number of Observations: 36

ATTACHMENT A

EPA

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

FNJD011881174

ITEMS

NUMBER

NAME

ADDRESS

N

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, aff it in the designated space. Review the inform ation carefully; if any of it is incorrect, cro through it and enter the correct data in th appropriate fill—in area below. Also, if any o the preprinted data is absent *(the area to th left of the label space lists the information that should appear)*, please provide it in th proper fill—in area(s) below. If the label i complete and correct, you need not complet items I, III, V, and VI *(except VI-B whic must be completed regardless)*. Complete a items if no label has been provided. Refer t the instructions for detailed item descrip tions and for the legal authorizations unde which this data is collected.

T CHARACTERISTICS

NS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any u must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column ental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity m permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold—faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
ility a publicly owned treatment works its in a discharge to waters of the U.S.?		X	
cility which currently results in discharges of the U.S. other than those described in e? (FORM 2C)		X	
ill this facility treat, store, or dispose of wastes? (FORM 3)	X		
will you inject at this facility any produced her fluids which are brought to the surface o h conventional oil or natural gas pro- jec. uids used for enhanced recovery of al gas, or inject fluids for storage of liquid ns? (FORM 4)		X	
ity a proposed stationary source which is 28 industrial categories listed in the in- and which will potentially emit 100 tons f any air pollutant regulated under the Act and may affect or be located in an rea? (FORM 5)		X	

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACH
B. Does or will this facility *(either existing or proposed)* include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

FACILITY

R. WARNER, INC.

CONTACT

A. NAME & TITLE *(last, first, & title)*: ER, BARRY, PRESIDENT

B. PHONE *(area code & no.)*: 609 769 1188

MAILING ADDRESS

A. STREET OR P.O. BOX: BOX 134

B. CITY OR TOWN: TOWN

C. STATE: NJ

D. ZIP CODE: 08098

LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: LAKE ROAD

B. COUNTY NAME:

C. CITY OR TOWN: TOWN

D. STATE: NJ

E. ZIP CODE: 08098

F. COUNTY CODE *(if known)*:

ATTACHMENT A-1

1 (6-80)

CONTINUE ON REVERSE

EPA

Consoli... / Permits Program

(This information is required under Section 3005 of RCRA.)

F N.0.0.1.1.8.8.1.1.7.4

ICIAL USE ONLY

ION ED	DATE RECEIVED (yr., mo., & day)	COMMENTS

OR REVISED APPLICATION

"X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a ication. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's umber in Item I above.

A. APPLICATION *(place an "X" below and provide the appropriate date)*

EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

MO. DAY

B. NEW FACILITY *(Complete item below.)*

FOR NEW FACILITIES PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR. MO. DAY

ED APPLICATION *(place an "X" below and complete Item I above)*

FACILITY HAS INTERIM STATUS

[X] 2. FACILITY HAS A RCRA PERMIT

ESSES — CODES AND DESIGN CAPACITIES

SS CODE — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

SS DESIGN CAPACITY — For each code entered in column A enter the capacity of the process.

UNT — Enter the amount.

OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of ure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
STORAGE: CONTAINERS		
ER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANKS	S02	GALLONS OR LITERS
LE	S03	CUBIC YARDS OR CUBIC METERS
IMPOUNDMENT	S04	GALLONS OR LITERS
N... L	S79	GALLONS OR LITERS
	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LICATION	D81	ACRES OR HECTARES
SPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided: Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

MEASURE	UNIT OF MEASURE CODE
.....	G
.....	L
RDS	Y
TERS	C
PER DAY	U

UNIT OF MEASURE	UNIT OF MEASURE CODE
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H

UNIT OF MEASURE	UNIT OF MEASURE CODE
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

OR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the d 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

DUP | V/A: C | 1

LINE NUMBER	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
5	600	G					
6	20	E					
7	146,000	G					
8							
9	104,000	U					
10							

CONTINUE ON REVERSE

ATTACHMENT A-

D. NUMBER (enter from page 1): 011881174 | T/A C: 1

FOR OFFICIAL USE ONLY: W | DUP | T/A C: 2 | DUP

RIPTION OF HAZARDOUS WASTES (continued)

...E NO. (...code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)				D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
2 1	10111	T	S 0 2	T 0 1			Process consists of
2 2	110	T	S 0 2	T 0 1			filtration and gravity
2 3	0	T	S 0 2	T 0 1			separation in
2 4	8.9	T	S 0 2	T 0 1			tanks.
2 6	973	T	S 0 2	T 0 1			
2 7	0	T	S 0 2	T 0 1			
2 5	2.5	T	S 0 1				Drummed filter residue
2 8	180	T	S 0 2				Wastewater from gravity
							separation

ATTACHMENT B

HAZARDOUS WASTE FACILITY

PERMIT APPLICATION

FOR

C.R. WARNER, INC.

P.O. BOX 134

EAST LAKE ROAD

WOODSTOWN, NEW JERSEY 08098

MAY 8, 1988

K&D PROJECT #1-1654-1

Prepared By: Andrew C. Rola

ANDREW C. ROLA, PE
PROJECT MANAGER

APPROVED BY: J. Robert Gallagher

J. ROBERT GALLAGHER, PE
VICE PRESIDENT OF ENGINEERING

bjg

t:11654-1

ATTACHMENT B1

TABLE OF CONTENTS

ATTACHMENT B 2

APPENDICES

ATTACHMENT B3

1.0 General Description

A general description of the facility and how it will operate to accept, treat, process, store and dispose of hazardous waste.

C.R. Warner, Inc., a privately held corporation, operates a waste oil storage and reclamation facility on a two acre site near Woodstown, New Jersey. The facility, built on previously undeveloped land, is located in a predominantly rural setting completely surrounded by pastureland. The nearest residence is located approximately one-quarter mile south of the facility.

Waste oil is reclaimed by noncontact heating of the oil with steam to promote the separation of water and solids from the oil. Recovered oils are sold out-of-state as blending oils for industrial burner fuel. The facility is presently operating under NJDEP Permit No. 1709B which is due to expire on November 10, 1988.

Warner disposes of waste sludge generated from the oil reclamation process to permitted disposal facilities. These wastes are transported under manifests as hazardous wastes. Oil waste generated from laboratory samples and truck internal washing are combined with incoming waste oils and recovered in the reclamation unit. Wastewater recovered from the oil is transported to an industrial wastewater treatment facility for disposal. The company does not dispose of any waste on-site and no inactive waste sites have been identified on the property.

External truck wash and sanitary wastewater flow via closed sewer into two concrete inground accumulation holding tanks. No wastewater is treated or discharged on-site. These waters are periodically removed from the holding tank using a vacuum truck and transported to a municipal wastewater plant for disposal.

The applicant maintains an analytical laboratory for load verification of incoming waste oil streams. Tests performed include BS&W, Flash Point and Specific Gravity. Waste analysis is performed quarterly, for outgoing blending oils, as required by the NJ DEP, by a certified analytical laboratory.

See Appendix "A" for a photograph of the facility.

ATTACHMENT B-4

2.0 Chemical and Physical Analysis

Chemical and physical analyses of hazardous waste to be handled at the facility containing, at minimum, all the information which must be known to treat, store, or dispose of the wastes properly in accordance with N.J.A.C. 7:26-9 and N.J.A.C. 7:26-10.

Hazardous waste handled at the facility consist of those listed below:

	NJ Hazardous Waste Number	Hazardous Waste	Hazardous Code
1.	X721	Waste automotive crankcase and lubricating oils from automotive service and gasoline stations, truck terminals, and garages.	(T)
2.	X722	Waste oil and bottom sludge generated from tank cleanouts from residential/commercial fuel oil tanks.	(T)
3.	X723	Waste oil and bottom sludge generated by gasoline stations when gasoline and oil tanks are tested, cleaned, or replaced.	(T)
4.	X724	Waste petroleum oil generated when tank trucks or other vehicles or mobile vessels are cleaned, including, but not limited to, oily ballast water from product transport units of boats, barges, ships or other vessels.	(T)
5.	X725	Oil spill cleanup residue which: (a) is contaminated beyond saturation; or (b) the generator fails to demonstrate that the spill material was not one of the listed hazardous waste oils.	(T)
6.	X726	The following used and unused waste oils; metal working oils; turbine lubricating oils; diesel lubricating oils; and quenching oils.	(T)
7.	X727	Waste oil from the draining, cleaning or disposal of electric transformers.	(T)
8.	X728	Bottom sludge generated from the processing, blending, and treatment of waste oil in waste oil processing facilities.	(T)

Non-hazardous waste handled at the facility include ID-72 and ID-73 liquids and virgin non-hazardous, non-regulated fuel oil.

ATTACHMENT B5

3.0 Process Description

A description of the processes to be used for each waste type including: (a) Flow schematics; (b) a material balance; and (c) the general type of equipment to be used.

Warner receives, in tank trucks, only selected waste oils having a maximum bottom sludge and water (BS&W) of 20 percent. They do not handle waste oil in 55 gallon drums.

Warner processes waste lubricating oils from gasoline stations and commercial businesses, tank cleanout from residential or commercial fuel oil tanks, oils recovered from spill cleanup, metal working oils, turbine lubricating oils, diesel lubricating oils, quench oils, and waste oils from electric transformers having polychlorinated biphenyls (PCB's) concentrations less than 50 parts per million (ppm).

Waste oil is delivered to the facility in bulk trucks owned by Warner. A sample of the oil is taken and analyzed for BS&W prior to unloading into a bulk storage tank. Oil containing two percent or less BS&W is filtered into a product storage tank for resale without any thermal treatment. Waste oils with a BS&W content between 2% and 20% are pumped through a series of basket filters and a Midwester Vibrating Oil Filter (see Appendix N for Manufacturers Information) into an insulated tank heated by a steam coil. The heating promotes the separation of water and solids from the oil and allows the water and solids to settle. Water and solids are drawn off the bottom of the tank and pumped into the wastewater storage tank. The recovered oil is pumped into a product oil tank. The wastewater is transported, under manifest, to a licensed disposal facility. Solids removed from the oil are transported, under manifest, to a permitted hazardous waste landfill. Recovered oils are sold for use in No. 6, No. 5, and No. 4 Fuel Oil blends which are used as industrial burner fuels. These oils are tested for regulated substances to ensure compliance with regulatory permits.

Warner has a 100-horsepower, No. 2 Fuel Oil fired boiler which generates steam at a pressure of 15 pounds per square inch (psi) which is used for noncontact heating of the waste oil.

Design capacities of these tanks are as follows:

T1 - 42,000 gal. - Finished Product,
T2 - 42,000 gal. - Finished Product,
T3 - 42,000 gal. - Waste Water,
T4 - 42,000 gal. - Insulated Heating Tank,
T5 - 42,000 gal. - Insulated Heating Tank,
T6 - 10,000 gal. - Insulated Heating Tank,
T7 - 10,000 gal. - Insulated Heating Tank,
T8 - 10,000 gal. - Receiving Tank from #6 & #7 Tanks and
T9 - 10,000 gal. - Waste Water.

ATTACHMENT 86

A process flow schematic is depicted in Appendix "B".

A Material Balance for 1987 is listed below.

Incoming Waste Oils		Outgoing Product and Waste
X721	2,692,135 gals	0
X722	29,340 gals	0
X723	0	0
X724	2,360 gals	0
X725	0	4,900 lbs*
X726	1,945,835 gals	0
X727	0	0
X728	0	48,000 gals
Fuel Blended Product	0	4,612,580 gals
Total	4,669,670 gals	4,660,580 gals

* Represents eight (8) drums of filter residue and sludge.

The facility uses the following equipment.

Class A,B, and C multi-class extinguishers with 20 pound capacity are present at each electrical box and valve operation area where a leak or spill could be anticipated, for containment of small fires.

A protective dike is provided for each group of storage tanks located on the facility.

C.R. Warner also maintains a steam jenney for decontamination; five truck tractors with three inch pumps capable of vacuuming oil from the ground; and five seven-thousand gallon trailers for storage, if needed.

The facility has the spill control and clean-up capability as indicated in the contingency plan which includes gravel, backhoe, and dump truck equipment to block the surface flow of oil, and to remove surface soil contaminated with oil.

ATTACHMENT 67

4.0 Waste Analysis Plan

A copy of the waste analysis plan, required by NJAC 7:26-9.4(b):

A waste analysis plan for C.R. Warner is attached as Appendix C.

5.0 Security Procedures

A description of the security procedures and equipment required by N.J.A.C. 7:26-9.4 (h).

The permittee prevents the unknowing entry, and minimizes the possibility for the unauthorized entry, of persons or livestock onto the active portion of the facility.

The permittee has an eight foot security fence with barbed wire around the entire property, access to which is controlled through a front gate which is locked at the end of the working day.

A sign posted, "Danger - Unauthorized Personnel Keep Out", at each entrance to the active portion of the facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion.

The facility is adequately equipped with mercury vapor lights at various locations throughout. These lights stay lit from dusk to dawn.

The township police department provides surveillance through routine police patrol, and telephones are located at various locations throughout the facility.

6.0 Inspection Schedule

A copy of the general inspection schedule required by N.J.A.C. 7:26-9.4 (f) as well as any specific inspection schedule required by N.J.A.C. 7:26-10.

C.R. Warner performs <u>daily</u> site inspections of the oil processing system. The tank farm and all tanks, pipes, valves, pumps and other structural components, etc., are checked for indications of structural failure, corrosion, leakage, and/or mechanical failure.

C.R. Warner also performs <u>weekly</u> inspections of the perimeter fence, loading pad, retaining walls, fire extinguishers, the steam jenney, the emergency alarm and to indicate the presence of odor. <u>Monthly</u> inspections are performed of the emergency alarm, first aid kits, telephones, shower, fire extinguishers, oil absorbents, shovels and brooms. Samples of each daily, weekly and monthly inspection reports are in Appendix D.

Written daily logs of conditions are kept on-site.

ATTACHMENT B2

All storage tanks have sufficient shell strength and pressure controls to assure that they do not collapse or rupture. A minimum shell thickness of 3/16" is maintained during the life of the tank. Shell thickness testing are performed before commencement of operations and every five years thereafter, or less if warranted, to ensure tank integrity. See Tank Thickness Test results attached in Appendix E.

ATTACHMENT 69

7.0 Preparedness and Prevention Procedures

A description of the preparedness and prevention procedures and equipment required by N.J.A.C. 7:26-9-6.

The permittee has equipped the facility with emergency equipment in order to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous wastes or hazardous waste constituents to the air, surface water, or ground water which could threaten the environment or human health. The facility's equipment includes the following:

Class A, B, and C multi-class extinguishers with 20 pound capacity are present at each electrical box and valve operation area where a leak or spill could be anticipated, for containment of small fires.

A hydrant connected to city water service is present within approximately 200 feet of the premises. Additionally, the local fire department has been familiarized with the fact that flammable fuels are stored at the subject facility, and are aware of the fire control techniques to be used. See Appendix F for Correspondence with the Fire Company relating to fire drills performed at the facility.

A protective dike is provided for each group of storage tanks located on the facility.

Other equipment available on-site:

Steam jenney for decontamination; five truck tractors with three inch pumps capable of vacuuming oil from the ground; and five seven-thousand gallon trailers for storage, if needed.

The facility has the spill control and clean-up capability as indicated in the contingency plan which includes gravel, backhoe, and dump truck equipment to block the surface flow of oil and to remove surface soil contaminated with oil.

This equipment is tested and maintained as necessary to assure its proper operation in time of emergency.

Also, Mid-Atlantic Refinery Service, Inc., 2301 Pennsylvania Avenue, Deptford, New Jersey, 08096, (609) 589-5000, will respond to assist in the event of an emergency.

ATTACHMENT B16

8.0 Contingency Plan

A copy of the contingency plan, and a description of emergency procedures required by N.J.A.C. 7:26-9.7.

A contingency plan has been developed for the C.R. Warner Facility. This plan is posted in the office for easy access in the case of an emergency. The contingency plan is in Appendix F.

9.0 Detailed Drawings

See Attached Drawings.

Sheet 1. Site Map

Sheet 2. Enlarged Topographic Map

10.0 Description of Procedures

(a) Prevent hazards in unloading operation (for example, ramps, special forklifts); (b) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, beams, dikes, trenches); (c) Prevent contamination of water supplies; (d) Mitigate effects of equipment failure and power outages; and (e) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing).

i. Unloading Hazards

To prevent hazards all loading and unloading operations are performed on a specially constructed tapered concrete pad, equipped with a safety drain leading into the diked area which may be opened in the event of an overflow of the trucks.

Also, two 3" pumps can remove the spilled material and pump it directly into a storage tank.

ii. Runoff

All storage tanks are located inside diked areas. These area walls are constructed of cement block approximately 4' high.

ATTACHMENT B II

iii. Contamination of Water Supply

There are no surface water bodies present on this facility. No process area, transfer area, diked storage area, or secondary containment system drains into a watercourse, ditch, sewer pipe or storm drain that leads into a watercourse or public sewage treatment plant.

iv. Effects of Power Failure

Equipment and power outages would not cause major problems because the facility's treatment operations are performed primarily on a batch basis; power outages will not result in the continuous flow of materials from one treatment operation to another. The storage area does not require any electrical equipment, and thus would not be impacted by a power outage.

v. Exposure

Undue exposure of personnel to hazardous waste is minimized because all wastes are maintained in transporting vehicles and transferred directly to the permanent tanks on-site. No materials are discharged to open pits or containments on-site. Moreover, C.R. Warner maintains operating procedures which minimize exposure of personnel to hazardous waste.

Personnel training is outlined in section 23 of this application.

11.0 Accidental Ignition

A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with N.J.A.C. 7:26-9.4 (e) including documentation demonstrating compliance with N.J.A.C. 7:26-9.4 (e).

This facility does not accept reactive, incompatible or ignitable wastes with a flash less than 140°, therefore eliminating any such problem.

12.0 Property Deed

Not applicable because no disposal occurs on-site.

13.0 Topographic Map

See attached topographic map with detailed drawings sheet 2 of 3.

14.0 (Reserved)

ATTACHMENT B12

15.0 Identification of 100 Year Flood Plain

This facility is not located within a 100-year floodplain. See attached floodplain map in Appendix G.

16.0 Closure Plan

A copy of the closure plan and, where applicable, the post-closure plan required by N.J.A.C. 7:26-9.8 and N.J.A.C. 7:26-9.9.

Closure Plan - In the event that the present oil recycling facility was closed, the oil filtration equipment including the screening and filtering tanks, would be removed and if any traces of hazardous wastes were discovered in the tanks, filters, piping or pumping equipment itself, the contaminated materials would be disposed of in a properly licensed hazardous waste handling facility. The expense of removing the tanks, piping and filtration equipment actually used in the processing and the waste oil is not anticipated to be large since the equipment itself is not of great physical bulk and could very probably be trucked to a properly licensed disposal area in one or two truckloads. The actual area for containment of the waste particles separated from the oil is a 50 gallon drum. It is anticipated that approximately six such drums would be used at full level operation of the plant during each year. These drums would remove all of the waste material separated from the oil from the facility by their disposition at a properly licensed hazardous waste disposal facility. Thus, no hazardous waste would be remaining on the site of the applicant's operation other than in the closed drum, and no more than one such drum is anticipated at any one time. The closure plan would call for the removal and disposal of any operating equipment contaminated by hazardous waste and any remaining waste material in the storage drum properly licensed facility. In light of the nature of the material being recycled, it is not thought likely that any of the operating equipment will be contaminated by hazardous waste. The larger storage tanks, which would be used only for storing the cleansed motor oil, if not found to be contaminated with any residues of hazardous wastes, could be returned to usage for other fuel oil type products, and would be treated as any other fuel storage tank upon obsolescence.

The closure plan procedure and cost estimate are contained in Appendix H.

Post-Closure Plan - In light of the fact that the closure plan calls for removal, from the physical plant, and disposal, at an appropriately licensed solid waste handling facility, all solid waste material located on this site and all equipment contaminated from the handling of hazardous waste materials, a post-closure plan closing access to the

ATTACHMENT B13

plant, facility or its area is deemed unnecessary. The closure plan calls for the complete elimination of all hazardous materials and the site should be available for continued operation by this company in the fuel oil business should this particular phase of the business at some time be closed.

17.0 Notice in Deed

For existing facilities, documentation that a notice has been placed in the deed or appropriate alternative instrument as required by N.J.A.C. 7:26-9.9 (n).

The facility is not operated as a disposal facility. In the event of final closure, no wastes shall remain on-site. As such, the facility does not meet the requirements of 7:26-9.9, inclusive.

18.0 Closure Cost Estimate and Financial Assurance Mechanism

The most recent closure cost estimate for the facility prepared in accordance with N.J.A.C. 7:28-9.20 (d) plus a copy of the financial assurance mechanism adopted in compliance with N.J.A.C. 7:26-9.10 (e).

See attached Closure Cost Estimate in Appendix I, and Financial Assurance Mechanism in Appendix J.

19.0 Post-Closure Estimate and Financial Assurance Mechanism

Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with N.J.A.C. 7:26-9.11 (c) plus a copy of the financial assurance mechanism adopted in compliance with N.J.A.C. 7:26-9.11 (d).

This section is not applicable because no waste will remain on-site after closure.

20.0 Insurance Policy

Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of N.J.A.C. 7:26-9.13. For a new facility, documentation showing the amount of insurance meeting the specification of N.J.A.C. 7:26-9.13 (b) and, if applicable, N.J.A.C. 7:26-9.13 (c), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in N.J.A.C. 7:26-9.13 (f).

See Insurance policy in Appendix K.

ATTACHMENT B14

21.0 Additional Information

See copy of Environmental Risk Assessment of C.R. Warner, Inc., Waste Oil Recovery Facility, prepared by Pilko & Associates, Inc., dated October, 1987, in Appendix L.

22.0 Traffic Patterns

> Traffic patterns, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes (if appropriate); describe access road surfaces and load bearing capacities show traffic control signals).

Traffic is minimal, and the entire facility is on flat ground visible to the person entering and exiting. There are no problems with traffic on the main road due to the fact that C.R. Warner is located in a rural area. Trucks exit and enter on East Lake Road.

The facility supports an average traffic volume of five (5) trucks per day. This average traffic volume does not exceed allowable traffic volumes for state, county and local roads in the vicinity of the site.

See attached site plan with detailed Drawings in Appendix O.

23.0 Training Program

> An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with N.J.A.C. 7:26-9.4(g). A brief description of how training will be designed to meet actual job tasks in accordance with requirements in N.J.A.C. 7:26-9.4(g).

All employees are required to read and sign off on the Training Booklet entitled, "The Handling of Hazardous Waste" contained in Appendix M.

Due to the small size of the facility and the minimal amount of employees, there are two employees that operate and maintain the mechanical parts of the facility. Both individuals have been employed with the company since it was first established.

The two employees are the President and the Yard Supervisor. Both can demonstrate the following:

An ability to handle the facility non-transportation related equipment.

Thorough knowledge of grade and name of all products handled.

Knowledge of capacities of all storage tanks and products assigned.

ATTACHMENT B15

Ability to gauge volume and convert gauge readings to gallons, if necessary.

Knowledge of location and operation of all piping and valves.

Knowledge of location and operation of all safety equipment.

Knowledge of location and operation of all oil spill containment equipment and method of use.

Knowledge of emergency shut-off system.

Knowledge of all operating and spill contingency procedures.

No new employees are involved in the mechanical operations. In the future, any new employee would receive extensive on-the-job training before he would be allowed to assume the responsibilities involved in these mechanical operations.

The following is a list of Job Titles and names of the individuals who hold these positions:

President	Barry R. Warner
Vice President	Dolores M. Warner
Yard Supervisor	Bud Stocklin
Garage Supervisor	Sanford Williams
Office Supervisor	Betty Matczak
Secretary	Donna A. Quirk
Truck Drivers	Anthony Alestra, Vincent Wentzell, and Sanford Williams.

The following are job descriptions for the above titles:

President	Oversees entire operation of business
Vice President	Coordinates business paperwork.
Yard Supervisor	In charge of all activities in yard: loading and unloading of trucks, daily inspection of facility equipment, logging of daily inventory records, sampling of incoming and outgoing oils, and testing emergency siren alarm.
Garage Supervisor	In charge of maintenance of trucks and shop tools.
Office supervisor	In charge of all office duties; typing and filing all manifests, maintaining first aid supplies, maintaining telephones, payroll and, Reports.
Truck Drivers	In charge of maintaining trucks; checking trucks and trailer before leaving facility, maintaining safety equipment of truck, and keeping logs.

ATTACHMENT B16

The qualifications for the individuals whose jobs have already been described are as follows:

President	Mr. Warner has been in the waste oil business for five years and prior to that was in the fuel oil business for 25 years.
Vice President	Mrs. Warner has been in the waste oil business for five years.
Yard Supervisor	Mr. Stocklin has been in the waste oil business for five years.
Garage Supervisor	Mr. Williams has been in the waste oil business for five years, and was a truck driver for over three years prior to that time.
Office Supervisor	Mrs. Matczak has been in the waste oil business for five years and prior to that was in the fuel oil business for 10 years.
Secretary	Mrs. Quirk has been in the waste oil business for six months, and previously worked for a hazardous waste transporter for six years.
Truck Drivers	Mr. Alestra was previously a hazardous waste transporter for many years. He has been in the waste oil business for almost a year. Mr. Wentzell graduated from a truck driving school and has been in the waste oil business for over six months. Mr. Williams, as previously stated, has been a truck driver for the past eight years.

All new employees, with the exception of office personnel, are required to have six months on-the-job training.

New employees working in the plant and garage areas will be shown how to take all precautions in dealing with hazardous waste to insure safety factors and all other phases of emergency procedure.

Training continues on an annual basis and all personnel are required to attend meetings pertaining to procedures of hazardous waste and safety factors. The facilities Contingency Plan, Emergency Procedure Plan and any new regulations are also reviewed.

All employees are required to take part in a semi-annual drill with the local fire and ambulance companies. Records are kept on these drills.

ATTACHMENT B-7

24.0 NJAC 7:26-12.2 (f)

1. Storage of Hazardous Waste in drums

   i. Containment System

   The only hazardous wastes generated and/or stored on-site are oily rags, contaminated materials used in the event of a spill and dirt and sludge removed form incoming products.

   These wastes are contained in 55 gallon drums which are kept inside the containment wall areas and labeled Hazardous Waste. No drums are stored in an unprotected area.

   Refer to Containment Area "C" on Engineering Plan, which is compromised of reinforced concrete floor with cement block walls. Materials are contained in drums in this area until removed for shipment to a licensed disposal facility.

2. Storage Tanks

   i. Design Standards

   See Engineering Plan.

   ii. Construction Materials

   All tanks are constructed of carbon steel. Tanks # 4, #5, #6, #7, and #8 are insulated to prevent external rusting.

   iii. Tank Dimensions, Capacity and Shell Thickness

   See Attached Appendix E for Shell Thickness.

Tank #	Height/Length	Diameter	Capacity
1	19'6" high	20'	42,000 gals.
2	19'6" high	20'	42,000 gals.
3	19'6" high	20'	42,000 gals.
4	19'6" high	20'	42,000 gals.
5	19'6" high	20'	42,000 gals.
6	29'8" long	8'	10,000 gals.
7	15'0" long	10'	10,000 gals.
8	15'0" long	10'	10,000 gals.
9	24'0" high	8'	10,000 gals.

ATTACHMENT B18

iv. Piping, Instrumentation and Process Flow

See attached diagram in Appendix B.

v. Feed Systems, etc.

Not applicable.

vi. Incompatible, Ignitable or Reactive Wastes

Not applicable. This facility does not handle any incompatible, ignitable, or reactive wastes.

vii. Containment and Detection Systems

See attached drawing.

All tanks storing waste oil products are located inside concrete containment areas A, B, or C.

All product flow is pumped through calibrated meters. Daily readings are kept on all tank levels. Each week the tanks are measured to insure that the tank levels and the charts are in agreement.

(1) Drawings

See attached Engineering Plan.

(2) Capacity of Containment System

See attached Engineering Plan.

Each containment system is large enough to hold all the product from all the tanks in each respective containment area.

(3) Detect Leaks and Spills

All oil products are stored in contained areas as shown on the Engineering Plan.

(4) Drainage

The only liquids in this containment system consist of rain water, which evaporates.

(5) Accumulated Liquids

Excessive rain water can be pumped from the containment area into Tank #3 which is the water storage tank.

ATTACHMENT B19

3. Surface Impoundments

Not Applicable

4. Incineration

Not Applicable

5. Landfill

Not Applicable

25.0 Signature

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

_____

Barry R. Warner, Sr.

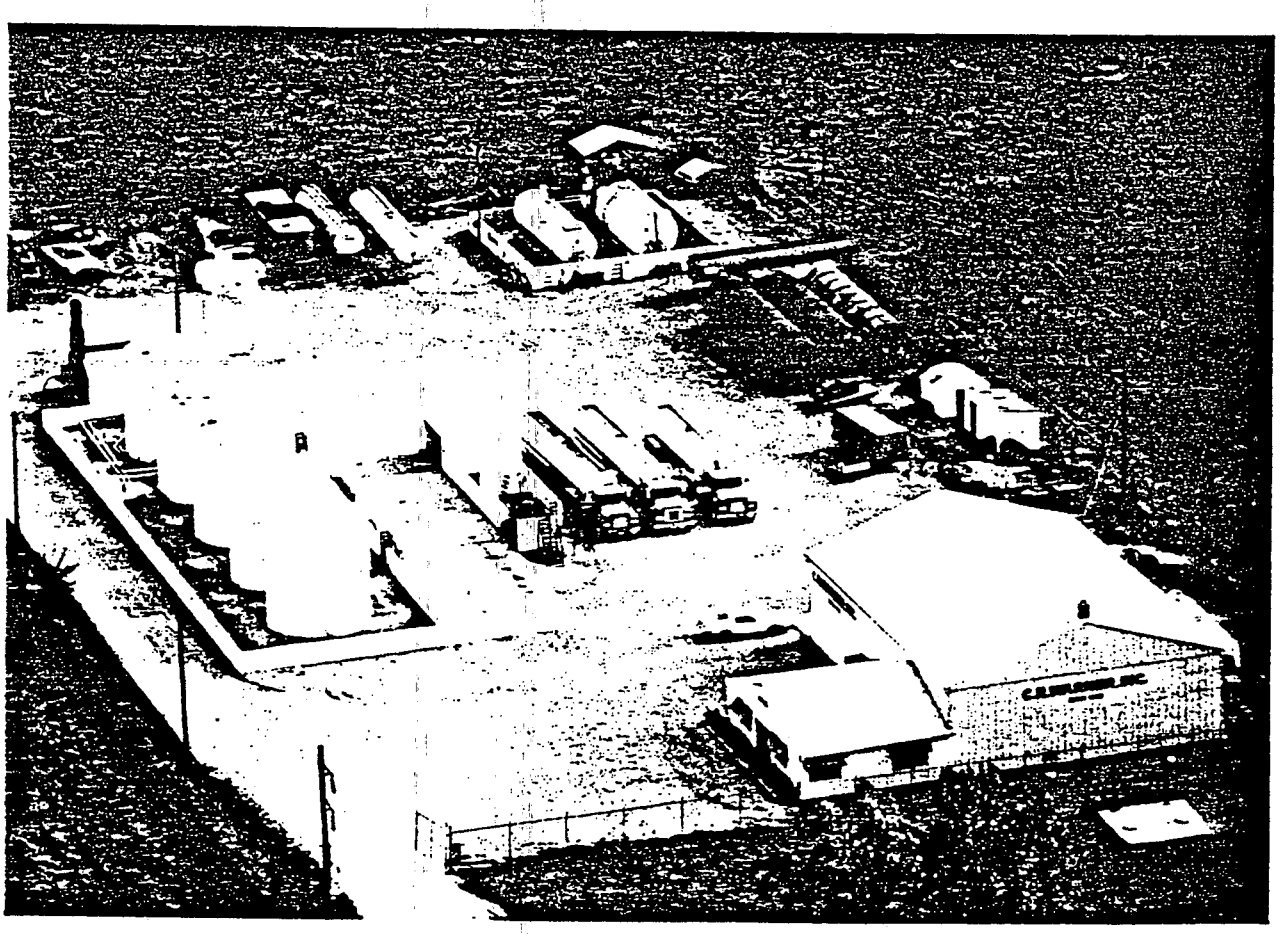
Sworn to and subscribed before me this ___ day of _____, 1988.

_____

ATTACHMENT B20

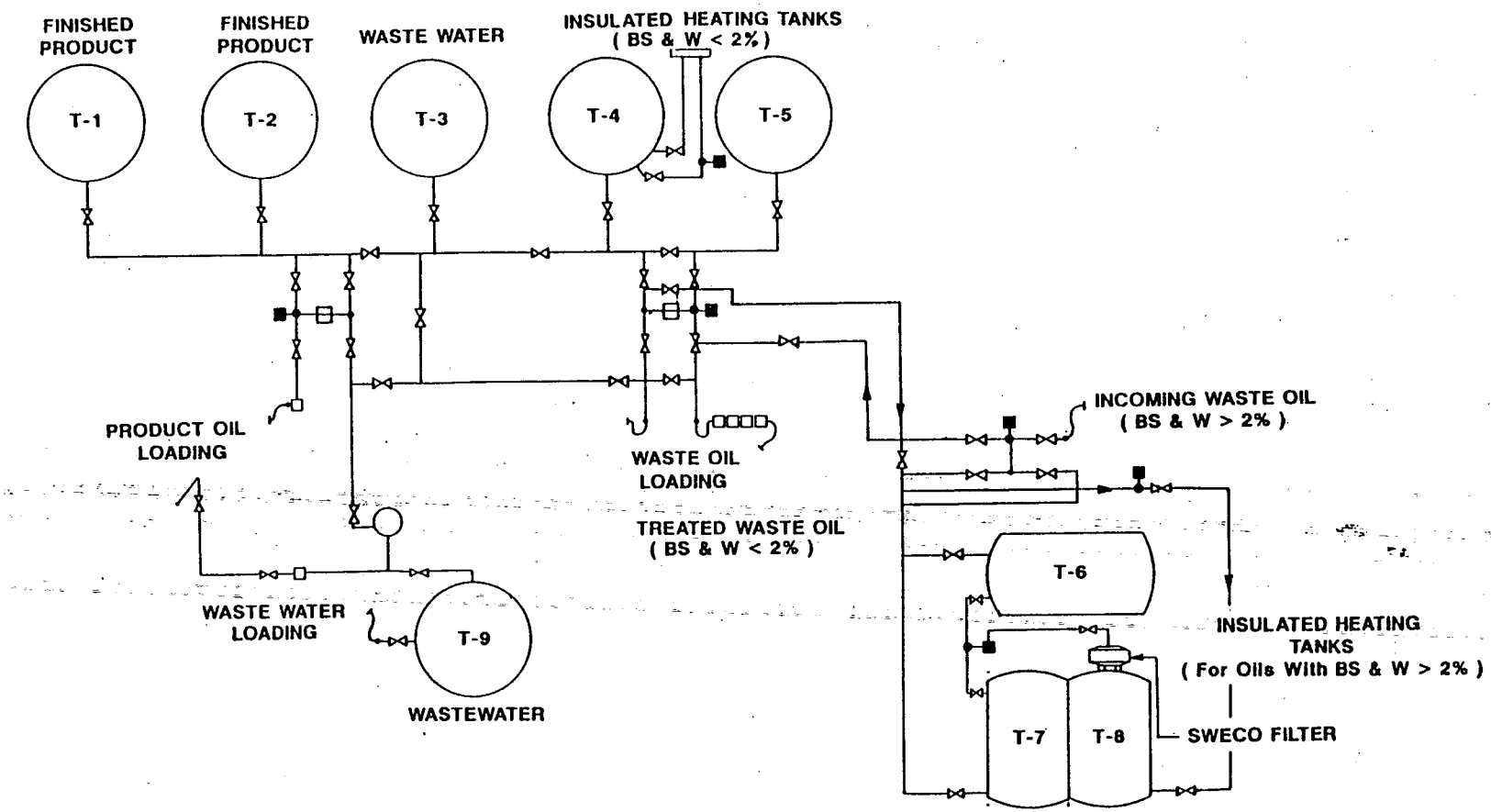
Appendix A

Photograph



ATTACHMENT B-1

ATTACHMENT B2



Process Flow Schematic
C.R. WARNER, INC.

K&D

APPENDIX B

APPENDIX C

WASTE ANALYSIS PLAN

This waste analysis plan for C.R. Warner is prepared in accordance with NJAC 7:26-9.4(b)2.

Incoming Waste

Two representative liquid samples of each incoming shipment are obtained using a liquid composite (COLIWASA) of adequate length to reach the bottom of the truck's tank. One sample is used to analyze the truckload for BS&W, Gravity, and Flash Point using approved methods. This testing is done prior to unloading the tank truck. The remaining portion of the first truckload sample is retained for three months.

The waste will not be accepted unless it meets the following incoming waste specifications:

BS&W	(20%
Flash Point	(140°F
PCB's	(50 ppm

The second sample is used to obtain a composite sample of incoming oil shipments for PCB analysis. Each facility tank which incoming oil is transferred into is marked with a red tag. The red tag remains on the tank until PCB analysis of the composite sample representative of that tank has been completed and the PCB content has been found acceptable. Oil is not removed from any tank bearing such a red tag. The PCB analysis of the composite samples is performed by a certified laboratory. A copy of a standard composite sample analysis is attached herein. The composite sample PCB content must be less than or equal to the sum of the number of samples, representing shipments, composited multiplied by the maximum acceptable level per shipment of 50 ppm. In the event that a composite sample yields a PCB analysis greater than the calculated value (50) the PCB content is deemed unacceptable. In such event, C.R. Warner will:

Provide oral and written notifications to the Department;

Keep all tanks which contain oil shipments represented in the composite sample under the red tag state until directed otherwise by the Department;

Refrain from adding any new incoming oil shipments to these affected tanks; and

Have the retained truckload sample for each oil shipment represented in the composite sample individually analyzed for PCB's to trace the source of the contamination.

C.R. Warner will maintain, on-site, a readily accessible description of all incoming waste loads. The description includes:

ATTACHMENT B23

The date, exact place, and time of sampling or measurements;

The individual(s) who performed the sample or measurements;

The date(s) analyses were performed;

The individual(s) who performed the analyses;

The type of waste oil, manifest number, and quantity; and

The results from the applicable tests listed above.

C.R. Warner will not accept any material unless the material to be accepted is, in fact, a material which the facility is authorized to handle.

Outgoing product Oil

C.R. Warner analyzes the outgoing oil shipments sold as product, as necessary, to ensure compliance with the product specifications for outgoing oil. At a minimum, these analyses will be performed on representative samples of product oils on a quarterly basis. A copy of a sample analysis report is attached to this Appendix.

Product oil will be sold as product oil intended for blending with virgin fuel oil. The product specifications are as listed below.

Parameter	Maximum Allowable
BS&W	2% (by volume)
Ash	0.8% (by weight)
Sulfur	3.0% (by weight)
Total Halogens	1,000 ppm
Lead	500 ppm

Outgoing oil which does not meet the above standards shall be manifested as a hazardous waste and transported for disposal at an approved hazardous waste facility.

All product oil intended for blending with virgin oil will be in compliance with NJAC 7:27-19.11 (proposed) and shall meet the specifications as established in the proposal regulations.

Process Wastewater

Process wastewater will be manifested as ID-72 and/or X728 waste and hauled off-site by a licensed solid waste transporter and disposed at a licensed treatment plant. Any wastewater classified as ID-72 will be analyzed for hazardous constants as specified by NJDEP Bureau of Regulations and Classification, Division of Hazardous Waste. Otherwise, the wastewater will be classified as X728 unless the NJDEP approves a written request for classification as ID-72.

ATTACHMENT B24

Hazardous Waste Generated On-Site

Sludge resulting from the various filters on-site, and all tank sludges resulting from tank clean outs will be manifested as X725.

Sanitary Waste Generated On-Site

Sanitary waste generated on-site is stored in 2 concrete septic tank and disposed by contract hauler to a sanitary treatment plant. The waste is designated as ID-73.

ATTACHMENT B25

SAMPLING AND ANALYSIS PLAN

C.R. Warner, INC.
Woodstown, New Jersey

Annual sampling of the soils in containment area "B" will be conducted to monitor the potential for groundwater contamination from possible spills in the containment area occurring during the year. Five soil samples will be collected at 3 ft. below the ground surface at locations shown on the attached Figure 1. All samples shall be analyzed for total petroleum hydrocarbons. The soil sample collected 120 ft. southeast of the containment wall and beyond the facility operational area will be considered a background sample to compare with possible contamination levels found in containment area "B".

Sampling will begin within one month after issuance of the permit and continued annually each year thereafter. All sampling results will be forwarded to the NJDEP Department of Hazardous Waste Management.

All field sampling shall be performed in accordance with EPA-600/2080-018, "Samplers and Sampling Procedures for Hazardous Waste Streams", the New Jersey Department of Environmental Protection's "Field Procedures Manual", and field sampling procedures outlined in SW-846.

Samples shall not be composited from any depths at any one sample location. Also, samples shall not be composited between any multiple sample locations.

Each discrete sampling location and depth shall be collected separately and labeled. Field data shall be kept in a bound field log, noting date, time, weather conditions, field sampling location, name(s) of field crew members and pertinent site data pertaining to field conditions and sampling procedures.

Samples shall be collected with stainless steel hand-augers. All sampling equipment shall be properly decontaminated between each sampling location, as per procedures outlined in the documents previously mentioned.

All sample media collected for laboratory analysis shall be placed in sterile, clear or amber glass jars and sealed with teflon-lined lids. All samples shall be kept cool (4C) during transportation to the laboratory. A properly executed Chain-of-Custody shall accompany all samples at all times.

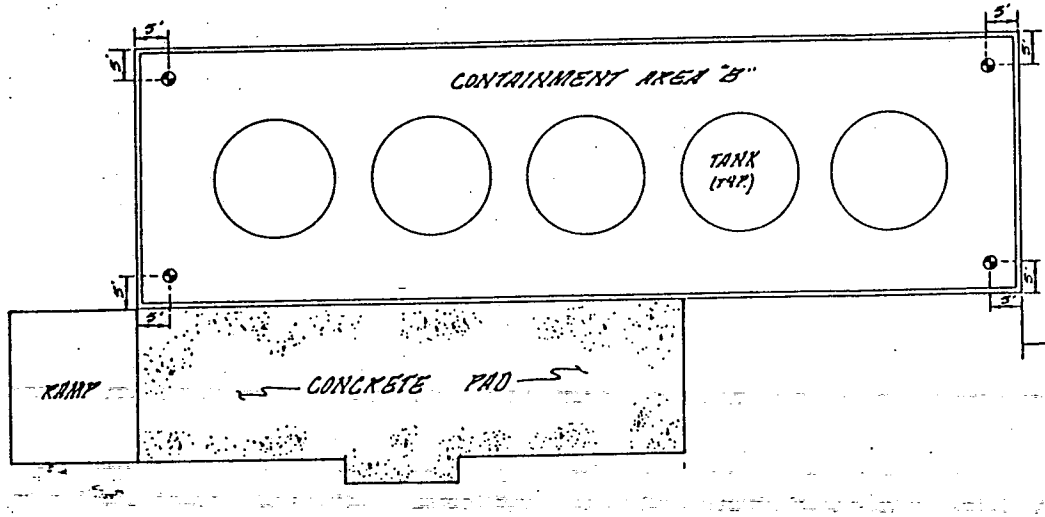
All samples shall be submitted for analysis to a New Jersey certified laboratory. All analysis performed shall be in accordance with approved methods, as outlined in SW-846, Test Methods for Evaluating Solid Waste, US EPA publication.

ATTACHMENT 26

Laboratory analysis of soil samples collected shall be performed for. Total Petroleum Hydrocarbons, by EPA method 418.1. The result from this analysis shall be used to determine if there has been contamination of the natural soils on-site by petroleum products stored and treated at the facility.

If laboratory analysis for total petroleum hydrocarbons indicates the presence of contamination, additional laboratory analysis may be required on the samples submitted, as well as additional field sampling to delineate horizontal and ventical extent of contamination.

ATTACHMENT 27



120 Ft. Min.

● : DENOTES SOIL BORINGS AT 3 Ft. DEPTH.

◒ : DENOTES SOIL BORING AT 3 Ft. DEPTH (FOR BACKGROUND CONTAMINATION)

ANALYSIS OF SOIL BORING SAMPLE SHALL BE FOR TOTAL PETROLEUM HYDROCARBONS, COLLECTED ANNUALLY.

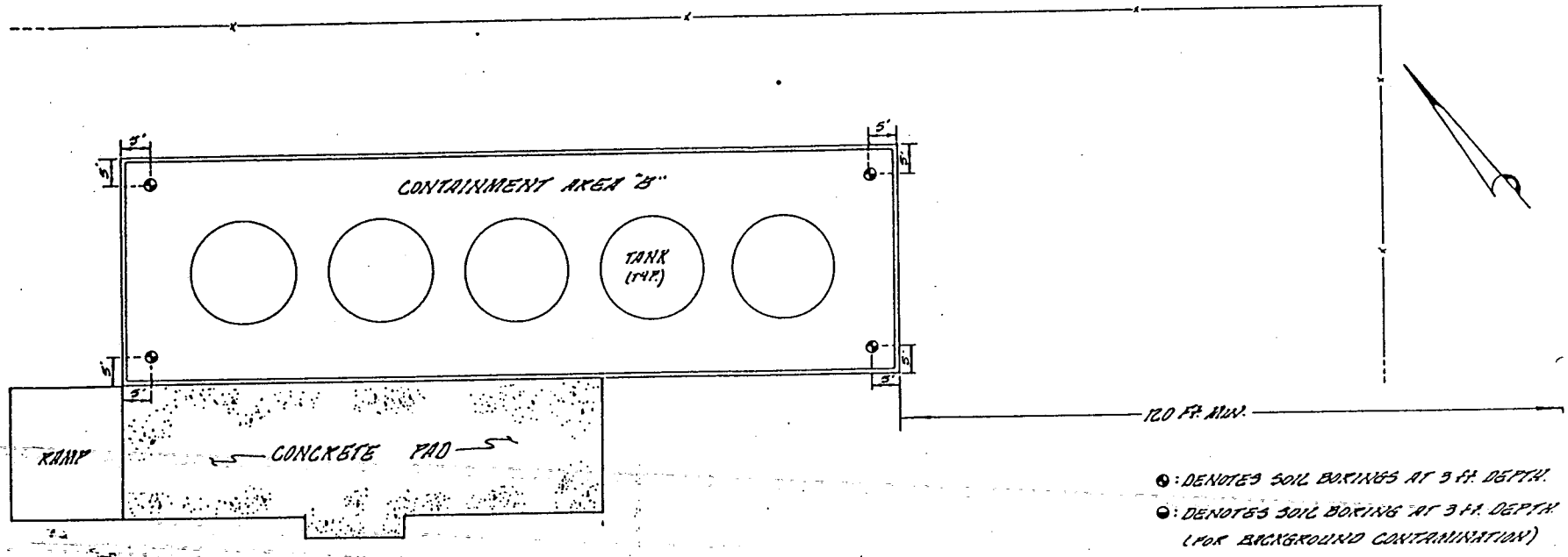
REV. NO.	DATE	REVISION DESCRIPTION

C. R. KARNER, INC.

SOIL BORING / ANALYSIS PLAN - CONTAINMENT AREA "B"

Drawn By: M.J.W.	Keselaan & D'Angelo Associates, Inc.	Scale: N
Approved By: A.R.	Engineering & Land Surveying Environmental Consultants 515 Grove Street, Haddon Heights, N.J. 08035 (609) 547-8300	Sheet: 1
Date: 11/15/88		Drawing: 1-15

ATTACHMENT 28



● : DENOTES SOIL BORINGS AT 3 FT. DEPTH.

◒ : DENOTES SOIL BORING AT 3 FT. DEPTH (FOR BACKGROUND CONTAMINATION)

ANALYSIS OF SOIL BORING SAMPLE SHALL BE FOR TOTAL PETROLEUM HYDROCARBONS, COLLECTED ANNUALLY.

REV. NO.	DATE	REVISION DESCRIPTION

C. R. WARNER, INC.

SOIL BORING / ANALYSIS PLAN - CONTAINMENT AREA "B"

Drawn By: M.J.W.	Kaselaan & D'Angelo Associates, Inc.	Scale: N
Approved By: A.R.	Engineering & Land Surveying Environmental Consultants 215 Grove Street, Haddon Heights, N.J. 08035 (609) 547-0300	Sheet: 1 O
Date: 11/15/88		Drawing: 1-16-2

ATTACHMENT 29

Appendix E

Tank Thickness Test Results

ATTACHMENT B 30

CASIE PROTANK

April 27, 1988

C.R. Warner, Inc.
East Lake Road
Woodstown, NJ 08098

Attention: Barry Warner

RE: Facility Ultra Sonic Testing

Dear Barry:

Please be advised that enclosed are the total facility Ultra Sonic Tank Tests #1 through #10. All test have met with the thickness requirements and have been checked out for adequate storage requirements.

All test have been conducted on a one foot square section and all thickness are read in one thousandenths of an inch. Please find the following averages per tank:

Tank #1 -	242.02	Tank #6 -	262.02
Tank #2 -	236.34	Tank #7 -	258.50
Tank #3 -	244.29	Tank #8 -	260.35
Tank #4 -	247.38	Tank #9 -	275.42
Tank #5 -	245.79	Tank #10 -	441.50

Barry, we hope that these figures meet with the requirements of your permit. If you should have any further questions regarding this matter, please do not hesitate to contact me at (609) 696-4401.

Sincerely,

Greg W. Call
President

GWC/lbh
enclosure

• P.O. BOX 92 • FRANKLINVILLE, N.J. 08322 • (609) 696-4401 • TELEFAX NO. (609) 696-7065

ATTACHMENT B-1

Appendix F

Correspondence with Fire Company

ATTACHMENT B32

THE RELIANCE FIRE COMPANY

OF

WOODSTOWN AND PILESGROVE TOWNSHIP
INCORPORATED

25 Broad Street, Woodstown, New Jersey 08098

October 7, 1987

C. R. Warner, Incorporated
East Lake Road
Woodstown, New Jersey 08098

To all concerned:

The Reliance Fire Company is very familiar with the Warner Company bulk storage facility located on East Lake Road in Pilesgrove Township. We have been to the facility on numerous occasions over the past years for fire drills, inspections, visits, and meetings but have never been called to that location for an actual emergency. We have never been denied entrance to the site and have received the utmost cooperation in all of our endeavors. We have even stored a piece of our fire equipment on the site until we could provide room for it at our firehouse.

In regard to mandatory twice-a-year visits to the site by the fire company, the following will support our belief that once-a-year visits will be sufficient:

1. In the course of our numerous visits we have become very familiar with the location and operation of this facility.

2. We have adequate fire pre-plans and mutual aid alarm cards in place in the event of an emergency at this location.

3. An undue hardship would be imposed on the Reliance Fire Company, a small town volunteer fire company, by requiring us to make this many visits in one year to one place without considering all of the other businesses in our jurisdiction.

Should you have any questions or comments concerning the above, please do not hesitate to call me at 609-769-2736.

Yours in firefighting,

Jeffrey W. Mortimer

Jeffrey W. Mortimer, Sr.
Chief

ATTACHMENT 33

THE RELIANCE FIRE COMPANY

OF

WOODSTOWN AND PILESGROVE TOWNSHIP
INCORPORATED

25 Broad Street, Woodstown, New Jersey 08098

September 23, 1987

C. R. Warner, Inc.
East Lake Rd.
Woodstown N.J. 08098

Dear Barry,

We would like to thank you for allowing us to use your bulk storage facility for the fire training excercise that we held on Monday, September 23, 1987.

For the purposes of our drill we simulated a fire in the yard area of your complex. We received valuable training in hose laying pumper/tanker operations, and firefighting techniques with hand lines. We also simulated rescue operations involving a person down near the scene of the fire and later a fireman injured in a building search.

Daretown Fire Company participated in the drill with us as one of our Mutual Aid companies along with Woodstown Ambulance Squad.

I have included a diagram of the truck placement that we used for this particular drill.

Thanks again,

Jeffrey W. Mortimer

Jeffrey W Mortimer, Sr.
Chief

ATTACHMENT 34

DRILL AT WARNER'S TANK FARM
SEPTEMBER 23, 1987

TRUCK ASSIGNMENTS

RELIANCE 1	SET UP FOR WATER SUPPLY
RELIANCE 2	FIRE SUPPRESSION, PROTECT EXPOSURES
RELIANCE 3	RESCUE FIRE SUPRESSION
RELIANCE 4	SUPPLY RELIANCE 3
RELIANCE 5	SUPPLY RELIANCE 1
RELIANCE 7	COMMAND POST, AIR PAKS
DARETOWN 1	PROTECT EXPOSURES
DARETOWN 2	STANDBY FOR ADDITIONAL ALARMS
DARETOWN 5	SUPPLY DARETOWN 1
DARETOWN 7	MANPOWER, AIR PAKS
WOODSTOWN 8A	FIRST AID
FIRE POLICE	DIRECT TRAFFIC

ATTACHMENT 35

THE RELIANCE FIRE COMPANY

OF

WOODSTOWN AND PILESGROVE TOWNSHIP
INCORPORATED

25 Broad Street, Woodstown, New Jersey 08098

March 22, 1987

C. R. Warner Inc.
East Lake Rd.
Woodstown, N.J. 08098

Dear Barry,

We would like to thank you for allowing us to use your bulk storage facility for the fire training excercise that we held on Monday, March 16, 1987.

For the purposes of our drill we simulated a fire in the area of your shop We received valuable training in hose laying, pumper/tanker operations, and firefighting techniques with hand lines. We also experimented with different methods of water supply and nurse tanker/shuttle tanker operations.

Alloway Fire Company participated in the drill with us as one of our Mutual Aid companies.

I have included a diagram of the truck placement that we used for this particular drill.

Thanks again,

Jeffrey W. Mortimer

Jeffrey W Mortimer, Sr.
Chief

ATTACHMENT 36

WARNER'S OIL TANK FARM

ATTACHMENT 37

Appendix G

Contingency Plan

ATTACHMENT 38

CONTINGENCY PLAN FOR HAZARDOUS MATERIALS SPILLS

C. R. WARNER, INC.
EAST LAKE ROAD
WOODSTOWN, NEW JERSEY 08098

The procedures as described in the following paragraphs should be followed in the event of a spill of any Hazardous Material on the Site:

At first notice that a major spill has occurred within the confines of the plant, the entire area should be evacuated. All personnel should be directed to an upwind location away from the spill area. A head count should be instituted at this time to determine if all personnel are present. Any personnel re-entering the area after the initial evacuation shall be equipped with the proper protective clothing and respiratory protection.

All utilities, including gas and electric service, should be turned off. This should be done at the exterior of any building to avoid gas surge and/or electrical arcing.

The material which has been spilled should be identified. This may be accomplished by determining the origin of the storage vessel from which it was discharged.

The toxicity of the material, or potential impact on human health, should be determined for the material. This may be ascertained by consulting the Material Safety Data Sheet (MSDS) for the material, as well as any standard reference manual such as the Rapid Guide to Hazardous Chemicals in the Workplace by Sax and Lewis, or, The Merck Index, 10th Edition, published by the Merck Company. Close attention should be paid to the recommendations for spill and leak procedures, as well as the protective equipment requirements.

An attempt to contain the material should be effected as soon as the material is identified and potential physical threats have been evaluated. Containment may be accomplished by diking the area with earthen material or commercially available products. Close attention should be paid to pathways of dispersion such as storm drains, waterways or sanitary sewers, outside the building. These areas should be diked or dirmed to prevent the material from contacting the State's waters. All personnel performing this task should be outfitted in protective clothing and/or respiratory protection as recommended in the MSDS.

ATTACHMENT 39

The complete area of the spill should be determined. Close attention should be paid to pathways of dispersion such as storm drains, waterways or sanitary sewers. Any potential areas of soil contamination should be noted, as well.

The approximate amount of spilled material should be determined as quickly as possible. If the amount of material is in excess of the Reportable Quantity under Federal Statutes or New Jersey SARA Title III reporting requirements, this should be noted, as well.

Emergency Services, such as the Fire Department and/or Police Department, should be contacted at the time of the incident. They may be contacted at the following numbers:

Salem County Fire and Ambulance Communication Center
Reliance Fire Department
(609) 769-2233

Woodstown Police Department
(609) 769-2121

Supervisory personnel should be contacted and notified in the following order:

Barry Warner
197 Elm Street
Woodstown, NJ 08098
Days - Contact Office - (609) 769-0086
After Hours - (609) 769-0006

Bud Stocklin
173 Jefferson Road
Pennsville, NJ 08072
Days - Contact Office - (609) 769-0086
After Hours - (609) 678-5404

The next step in the progression of events, should be the notification of the proper regulatory authorities. Under N.J.S.A. 58:10-23.11 (e), the responsible party is required to contact the New Jersey Department of Environmental Protection (NJDEP) Hotline in the event of a spill of a Hazardous material of any quantity. They may be contacted at the following number:

NJDEP Environmental Hotline
(609)-292-7172

Under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the responsible party must contact the National Response Center if the spill is in excess of the published Reportable Quantity. They may be contacted at the following number:

USEPA/USCG National Response Center
(800)-424-8802

ATTACHMENT 40

Under the requirements of the Superfund Amendment Reauthorization Act (SARA) Title III, the responsible party must contact the proper reporting authority within the state that the spill occurred, if the material is considered reportable, and, is in excess of the reportable quantity under this Act. In New Jersey, the following regulatory authority must be contacted:

New Jersey State Police
Office of Emergency Management
HazMat Hotline
(609)-292-7172

The following information should be given to any reporting authority that is contacted:

1. The Type of Incident
2. The location of the Incident
3. The Name of the Responsible Party
4. The Name of the Spilled Material
5. A Description of Incident
6. Whether the spill is Contained or Uncontained?
7. The quantity of spilled material
8. The Time of Original Incident
9. The Reason for any Reporting Delay
10. The Pathways of dispersion of the material such as soils, storm sewers, waterways or air
11. Any Health Indicators such as deaths or injuries

The above information should be collected as soon as possible after the incident occurs. In the State of New Jersey, it is recommended that the NJDEP Hotline be contacted within thirty (30) minutes after the discovery of the incident. Failure to report the incident in a timely fashion is in violation of N.J.S.A. 58:10-23.11 (f), and may subject the responsible party to penalties of up to $25,000 per day, per violation.

Mitigation, to insure that the material is cleaned-up and disposed of in a fashion that is acceptable under the laws of the regulatory authority, should be instituted as soon as possible. This may be done by contacting a clean-up contractor or environmental consulting firm that is familiar with this type of action, and, approved and licensed under the laws of the State of New Jersey.

Authorized clean-up contractors who shall be contacted are as follows:

1. Casie Ecology	(609) 696-4402
2. Mid-Atlantic Refinery Services	(609) 589-5000

ATTACHMENT 41

Before commencing operations the emergency coordinator shall assure that incompatible material is not processed on-site until cleanup is completed. Additionally, the emergency coordinator shall assure that all emergency equipment is cleaned or replaced, and fit for use before operations are resumed. He shall also contact the NJ State Police Hazmat Hotline at (609) 292-7172 before resuming operations.

Lastly, C.R. Warner, Inc. should note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, C.R. Warner, Inc. should submit a written report on the incident to the Department. The report should include, but not be limited to:

i. Name, address, and telephone number of the owner of operator;
ii. Name, address, and telephone number of the facility;
iii. Date, time, and type of incident;
iv. Name and quantity of material(s) involved;
v. The extent of injuries, if any;
vi. An assessment of actual or potential hazards to human health or the environment, where this is applicable;
vii. Assessment of the scope and magnitude of the problem;
viii. Description of the immediate actions that have been taken and the estimated quantity and disposition of recovered material that resulted from the incident; and
ix. Provide implementation schedule for undertaking suggested measures to eliminate the problem.

ATTACHMENT 42

Section 2.0 Contingency Plan for Air Releases of Hazardous Spills

2.0.1 Algorithmic Representation of Response Procedures

2.0.2 Detailed Contingency Plan

ATTACHMENT 43

CONTINGENCY PLAN FOR AIR RELEASES OF HAZARDOUS MATERIALS

ALGORITHMIC REPRESENTATION OF RESPONSE PROCEDURES

C. R. WARNER, INC.
EAST LAKE ROAD
WOODSTOWN, NEW JERSEY 08098

Air Releases
- Identify Material
- Determine Toxicity
- Attempt to halt release
- Determine Atmospheric Conditions
  - Temperature
  - Wind Direction
  - Wind Speed
- Determine possible area of impact
- Determine Amount of Product
- Contact Emergency Services if needed
- Contact supervisory personnel
- Contact Regulatory Authorities
  - NJDEP Hotline
  - National Response Center if > RQ
  - New Jersey State Police if SARA III Requirement
  - Give Information
    - Type of Incident
    - Location
    - Name of Responsible Party
    - Name of Material
    - Description of Incident
      - Contained or Uncontained?
    - Quantity
    - Time of Original Incident
    - Reason for any Reporting Delay
    - Potential Impact
      - Populated or Unpopulated Areas?
      - Schools?
      - Medical Facilities?
    - Health Indicators
      - Deaths?
      - Injuries?
- Contact Consultant or Clean-up Contractor

ATTACHMENT 44

Contingency Plan for Air Releases of Hazardous Materials

C. R. WARNER, INC.
EAST LAKE ROAD
WOODSTOWN, NEW JERSEY 08098

The procedures as described in the following paragraphs should be followed in the event air releases of any Hazardous Material from the site:

The material which has been released should be identified. This may be accomplished by determining the origin of the storage vessel from which it was discharged.

The toxicity of the material, or potential impact on human health, should be determined for the material. This may be ascertained by consulting the Material Safety Data Sheet (MSDS) for the material, as well as any standard reference manual such as the Rapid Guide to Hazardous Chemicals in the Workplace by Sax and Lewis, or, The Merck Index, 10th Edition, published by the Merck Company. Close attention should be paid to the recommendations for spill and leak procedures, as well as the protective equipment requirements.

An attempt to halt the release of the material should be effected as soon as the material is identified and potential physical threats have been evaluated. All personnel performing this task should be outfitted in protective clothing and/or respiratory protection as recommended in the MSDS.

Atmospheric Conditions including the temperature, wind direction and wind speed should be determined. This will assist the facility in determining the potential for dispersion and the impact area.

The potential impact area may be determined based on the wind speed and direction. The most efficient way to determine this would be to dispatch personnel downwind of the release site to monitor the air and to determine if the material is impacting the area. All personnel performing this task should be outfitted in protective clothing and/or respiratory protection as recommended in the MSDS. Close attention should be paid to the possibility of impact on adjacent businesses, populated areas, schools or medical facilities in the area.

The approximate amount of released material should be determined as quickly as possible. If the amount of material is in excess of the Reportable Quantity under Federal statutes or New Jersey SARA Title III reporting requirements, this should be noted, as well.

ATTACHMENT 45

Emergency Services, such as the Fire Department and/or Police Department, should be contacted at the discretion of the person in Charge at the time of the incident. Considerations in the making of this decision, should be the potential impact on neighboring properties or public health, and, the possibility of fire. They may be contacted at the following numbers:

Salem County Fire and Ambulance Communication Center
Reliance Fire Department
(609) 769-2833

Woodstown Police Department
(609) 769-2121

Supervisory personnel should be contacted and notified in the following order:

Barry Warner
197 Elm Street
Woodstown, NJ 08098
Days - Contact Office - (609) 769-0086
After Hours - (609) 769-0006

Bud Stocklin
173 Jefferson Road
Pennsville, NJ 08072
Days - Contact Office - (609) 769-0086
After Hours - (609) 678-5404

The next step in the progression of events, should be the notification of the proper regulatory authorities. Under New Jersey Clean Air Act, the responsible party is required to contact the New Jersey Department of Environmental Protection (NJDEP) Hotline in the event of an air release of a Hazardous material of any quantity. They may be contacted at the following number:

NJDEP Environmental Hotline
(609)-292-7172

Under the requirements of the Comprehensive Environmental Responsibility Compensation and Liability Act (CERCLA), the responsible party must contact the National Response Center if an air release is in excess of the published Reportable Quantity. They may be contacted at the following number:

USEPA/USCG National Response Center
(800)-424-8802

ATTACHMENT 46

Under the requirements of the Superfund Amendment Reauthorization Act (SARA) Title III, the responsible party must contact the proper reporting authority within the state that the air release occurred, if the material is considered reportable, and, is in excess of the reportable quantity under this Act. In New Jersey, the following regulatory authority must be contacted:

New Jersey State Police
Office of Emergency Management
HazMat Hotline
(609)-292-7172

The following information should be given to any reporting authority that is contacted:

1. The Type of Incident
2. The location of the Incident
3. The Name of the Responsible Party
4. The Name of the Material
5. A Description of Incident
6. Whether the release is Contained or Uncontained?
7. The quantity of material
8. The Time of Original Incident
9. The Reason for any Reporting Delay
10. The description of the potential impact area, and, whether that area is populated or unpopulated, or includes schools or medical facilities
11. Any Health Indicators such as deaths or injuries

The above information should be collected as soon as possible after the incident occurs. In the State of New Jersey, it is recommended that the NJDEP Hotline be contacted within thirty (30) minutes after the discovery of the incident. Failure to report the incident in a timely fashion is in violation of the aforementioned Act, and may subject the responsible party to penalties of up to $25,000 per day per violation.

Mitigation, to insure that any residual material is cleaned-up and disposed of in a fashion that is acceptable under the laws of the regulatory authority, should be instituted as soon as possible. This may be done by contacting a clean-up contractor or environmental consulting firm that is familiar with this type of action, and, approved and licensed under the laws of the State of New Jersey.

Authorized clean-up contractors who shall be contacted are as follows:

1. Casie Ecology (609) 696-4402
2. Mid-Atlantic Refinery Services (609) 589-5000

Lastly, an environmental consultant or plant engineer should be consulted to determine the cause of the incident, and, steps to be taken to avoid future repetitions of the same.

ATTACHMENT 47

APPENDIX G

Section 3.0 Contingency Plan for Fires involving Hazardous Materials

3.0.1 Algorithmic Representation of Response Procedures
3.0.2 Detailed Contingency Plan

ATTACHMENT 48

CONTINGENCY PLAN FOR FIRES INVOLVING OF HAZARDOUS MATERIALS

ALGORITHMIC REPRESENTATION OF RESPONSE PROCEDURES

C. R. WARNER, INC.
EAST LAKE ROAD
WOODSTOWN, NEW JERSEY 08098

FIRE

Evacuate the entire plant
Turn off utilities
Notify Emergency Services immediately
Determine extent of fire
Determine if Hazardous Materials are involved
    Identify Material
    Determine Toxicity
Attempt to halt flow into fire
Attempt to extinguish small fires
Contact supervisory personnel
Contact Regulatory Authorities
    NJDEP Hotline
    National Response Center if) RQ
    New Jersey State Police if SARA III Requirement
    Give Information
        Type of Incident
        Location
        Name of Responsible Party
        Name of Material involved in fire
        Type of Incident
            Description of Incident
            Contained or Uncontained?
        Quantity of material
        Time of Original Incident
        Health Indicators
            Deaths?
            Injuries?
Contact Clean-up Contractor or Consultants
    Insure proper clean-up
    Follow directives of regulatory authorities

ATTACHMENT 49

Before commencing operations
Assure spill is cleaned up
Assure emergency equipment is cleaned and fit
Notify Authorities
Record incident in operating log

ATTACHMENT 50

CONTINGENCY PLAN FOR FIRES INVOLVING OF HAZARDOUS MATERIALS

C. R. WARNER, INC.
EAST LAKE ROAD
WOODSTOWN, NEW JERSEY 08098

The procedures as described in the following paragraphs should be followed in the event of any fire involving Hazardous Materials on the site:

The entire area should be evacuated immediately. All personnel should be moved to an upwind area which was pre-determined in the facility's Fire Emergency Pre-Plan. A head count should be instituted to determine if all personnel are present.

All utilities, including gas and electric service, should be turned off. This should be done at the exterior of the area to avoid gas surge and/or electrical arcing.

Emergency Services, such as the Fire Department and/or Police Department, should be contacted immediately upon the acquisition of a report of a fire at the facility. They may be contacted at the following numbers:

Salem County Fire and Ambulance Communication Center
Reliance Fire Department
(609) 769-2233

Woodstown Police Department
(609) 769-2121

It is extremely important that a determination is made concerning the involvement of Hazardous Materials in the fire, and, whether they are actually feeding the fire. If this is the case, the material should be identified as quickly as possible. This may be accomplished by consulting engineering plans for the facility to determine the origin of any piping, or, the storage vessel from which it was discharged. This information must be communicated to the Fire Department upon their arrival.

ATTACHMENT 5(

The toxicity of the material involved in the fire, or potential impact on human health, should be determined for the material. This may be ascertained by consulting the Material Safety Date Sheet (MSDS) for the material, as well as any standard reference manual such as the Rapid Guide to Hazardous Chemicals in the Workplace by Sax and Lewis, or, The Merck Index, 10th Edition, published by the Merck Company. Close attention should be paid to the recommendations for firefighting procedures, spill and leak procedures, and, protective equipment requirements.

An attempt to halt the flow of this material into the fire should be effected as soon as the material is identified and potential physical threats have been evaluated. Containment may be accomplished by diking the area with earthen material or commercially available products. Valves upstream of the discharge point should be shut or gated away from that point.

Close attention should be paid to pathways of dispersion of these materials including the smoke from the fire itself.

Small fires on-site may be actively attacked for control and extinguishment. Extreme care should be taken while in this operation and protective clothing such as Nomex or PBI should be worn to protect the employee. If the fire involves hazardous materials, positive-pressure self-contained breathing apparatus is mandatory.

All approaches to the fire should be done form upwind if possible. Distance from the employee to the fire should be close enough to ensure proper attack of the extinguishing material, but far enough away to ensure that the employee is safe. The proper extinguisher should be utilized for the Class(es) of fire present on the site.

The four classes of fire along with their constituents are as follows:

Class A - Wood, cloth, paper, rubber, many plastics ordinary combustible materials
Class B - Flammable liquids, gases and greases
Class C - Energized electrical equipment
Class D - Combustible metals such as magnesium, titanium, sodium, potassium

ATTACHMENT 52

Examples of proper extinguishing agents are as follows:

Class A -	Water
	Water with 1% AFFF Form (Wet Water)
	Water with 5% AFFF or Fluroprotein Foam
	ABC Dry Chemical
	Halon 1211
Class B -	ABC Dry Chemical
	Purple K
	Halon 1211
	Carbon Dioxide
	Water with 6% AFFF Foam
Class C -	ABC Dry Chemical
	Halon 1211
	Carbon Dioxide
Class D -	Metal-X Dry Chemical

No attempt should be made against large fires. These should be handled by the Fire Department.

The complete area of the fire should be determined. If human life appears to be in danger, or, the spread of the fire appears to be rapidly progressing, a decision should be made to move personnel further upwind away from the fire building.

Supervisory personnel should be contacted and notified in the following order:

Barry Warner
197 Elm Street
Woodstown, NJ 08098
Days - Contact Office - (609) 769-0086
After Hours - (609) 769-0006

Bud Stocklin
173 Jefferson Road
Pennsville, NJ 08072
Days - Contact Office - (609) 769-0086
After Hours - (609) 678-5404

If the fire involves Hazardous Materials, the next step in the progression of events, should be the notification of the proper regulatory authorities. Under N.J.S.A. 58:10-23.11 (e), the responsible party is required to contact the New Jersey Department of Environmental Protection (NJDEP) Hotline in the event of an fire involving Hazardous Materials of any quantity. They may be contacted at the following number:

NJDEP Environmental Hotline
(609)-292-7172

ATTACHMENT 53

Under the requirements of the Comprehensive Environmental Responsibility Compensation and Liability Act (CERCLA), the responsible party must contact the National Response Center if the fire involves a discharge in excess of the published Reportable Quantity. They may be contacted at the following number:

USEPA/USCG National Response Center
(800)-424-8802

Under the requirements of the Superfund Amendment Reauthorization Act (SARA) Title III, the responsible party must contact the proper reporting authority within the state that the discharge and fire, if the material is considered reportable, and, is in excess of the reportable quantity under this Act. In New Jersey, the following regulatory authority must be contacted:

New Jersey State Police
Office of Emergency Management
HazMat Hotline
(609)-292-7172

The following information should be given to any reporting authority that is contacted:

1. The Type of Incident
2. The location of the Incident
3. The Name of the Responsible Party
4. The Name of the Spilled Material involved in fire
5. A Description of Incident
6. Whether the fire is in or out of control?
7. The quantity of material
8. The Time of Original Incident
9. Any Health Indicators such as deaths or injuries

The above information should be collected as soon as possible after the incident occurs. In the State of New Jersey, it is recommended that the NJDEP Hotline be contacted within thirty (30) minutes after the discovery of the incident. Failure to report the incident in a timely fashion is in violation of N.J.S.A. 58:10-23.11 (f), and may subject the responsible party to penalties of up to $25,000 per day, per violation.

ATTACHMENT 54

Lastly, mitigation, to insure that the material is cleaned-up and disposed of in a fashion that is acceptable under the laws of the regulatory authority, should be instituted as soon as possible. This may be done by contacting a clean-up contractor or environmental consulting firm that is familiar with this type of action, and, approved and licensed under the laws of the State of New Jersey.

Authorized clean-up contractors who shall be contacted are as follows:

1. Casie Ecology (609) 696-4402
2. Mid-Atlantic Refinery Services (609) 589-5000

Before commencing operations the emergency coordinator shall assure that incompatible material is not processed on-site until cleanup is completed. Additionally, the emergency coordinator shall assure that all emergency equipment is cleaned or replaced, and fit for use before operations are resumed. He shall also contact the NJ State Police Hazmat Hotline at (609) 292-7172 before resuming operations.

Lastly, C.R. Warner, Inc. should note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, C.R. Warner, Inc. should submit a written report on the incident to the Department. The report should include, but not be limited to:

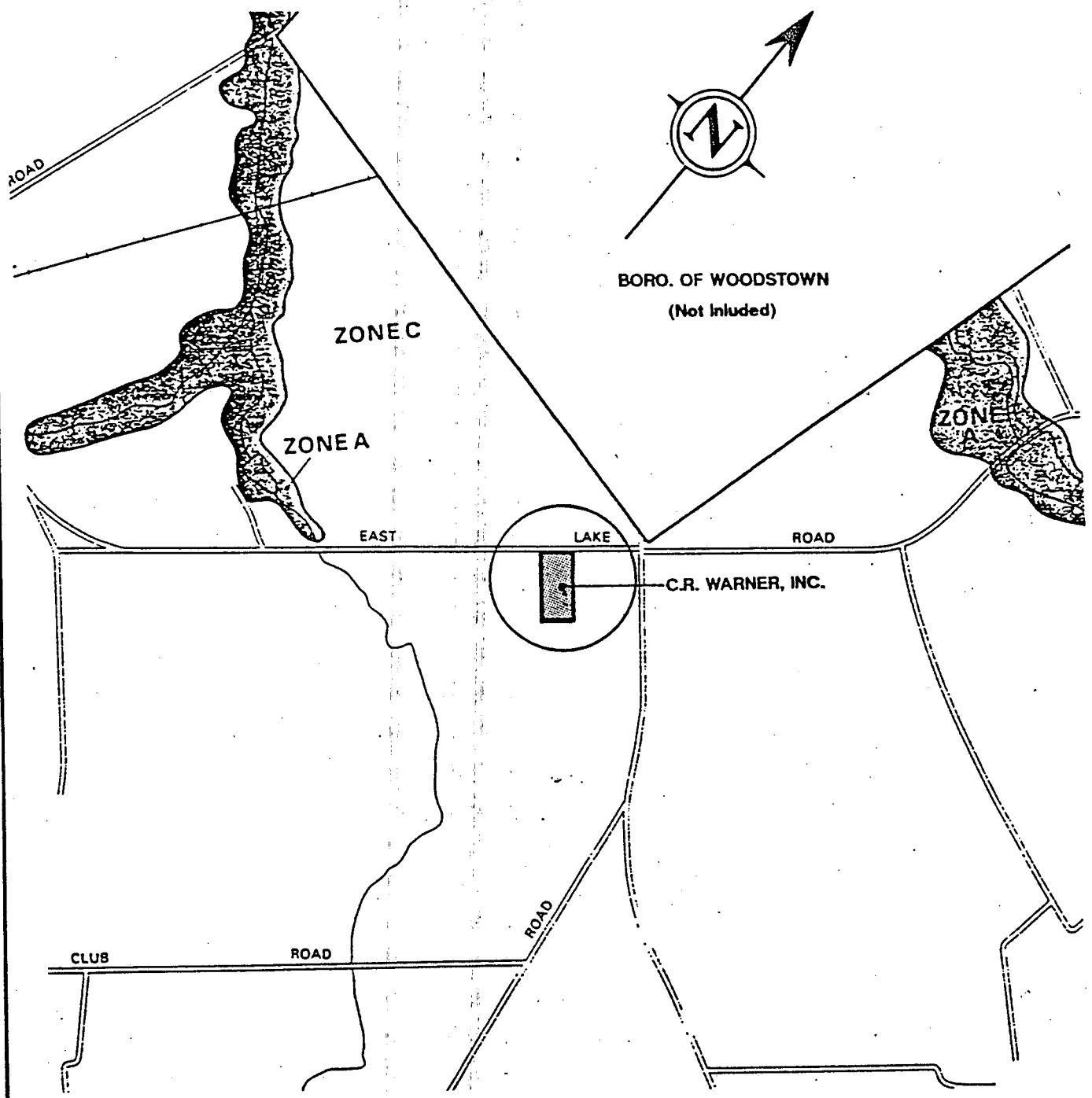
i. Name, address, and telephone number of the owner of operator;
ii. Name, address, and telephone number of the facility;
iii. Date, time, and type of incident;
iv. Name and quantity of material(s) involved;
v. The extent of injuries, if any;
vi. An assessment of actual or potential hazards to human health or the environment, where this is applicable;
vii. Assessment of the scope and magnitude of the problem;
viii. Description of the immediate actions that have been taken and the estimated quantity and disposition of recovered material that resulted from the incident; and
ix. Provide implementation schedule for undertaking suggested measures to eliminate the problem.

ATTACHMENT 55

Appendix H

Flood Insurance Rate Map

ATTACHMENT 56



ZONING LEGEND

A AREA OF 100 YR. FLOOD

C AREA OF MINIMAL FLOODING

C.R. WARNER

FLOOD INSURANCE RATE MAP

ATTACHMENT 5

APPENDIX H

Appendix I

Closure Plan

ATTACHMENT 58

CLOSURE PLAN

C.R. Warner, Inc.
Waste Oil Recycling Facility

1. Liquid Disposal and Processing

1.1 Tanks #1, #2 and #8 contain product oil available for sale as fuel blending oil. The contractor shall pump the contents of these tanks and sell as fuel blending oil to a fuel blending facility. The total amount to be sold is 94,000 gallons.

Existing customers for all product oil are:

Royal Petroleum, Philadelphia, PA
Alpine Petroleum, Berwyn, PA

1.2 Waste oil inventory in tanks #4, #5, #6 and #7 shall be processed in the existing system until product oil is formed. The worst case scenario, with all tanks full, would be to process 104,000 gallons of waste oil with BS & W content of 20%. After processing, 83,200 gallons of product oil would be formed and 20,800 gallons of BS & W would require disposal. Additionally, the worst case would include tanks #3 and #9 filled with wastewater with combined capacity of 52,000 gallons. (A more conservative worst-case scenario is used for estimating closure cost estimates).

2.0 Tank Cleaning/Liquid Disposal

2.1 The contractor will clean and dispose of all sludges inside tanks #1 through #9. The following specification will govern the tank cleaning. Disposal of the associated liquids, sludge and residue will be by the contractor.

A. Flush all piping leading to the tanks. The liquids will be collected in the tanks or pipe clean-outs if applicable.

B. The lines will then be steam-cleaned in order to remove any oily residues.

C. The tanks will be allowed to vent themselves of any built-up gases.

D. Add a degreasing agent to the existing water within the tanks. The tanks will then be hydrowashed or flushed using high pressure water jets.

ATTACHMENT 59

E. Upon completion, a vacuum suction truck will be provided by the contractor to remove the contaminated water from the tank.

F. The liquids that were accumulated during the tank cleaning will be properly disposed of according to their classification. The contractor shall supply NJ Hazardous Waste Manifesting showing proof of legal disposal.

G. Once clean, the tanks will be entered by an OSHA certified competent person. This person will analyze the ambient air quality within the confined space prior to issuing a safe-entry permit and certifying the tank as non-hazardous. If any scraping of caked-on material or residue is required, it will be disposed of by the contractor.

3.0 Decontamination of Secondary Containment Areas

3.1 Containment areas "A", "B" and "C" will be inspected for signs of contamination by visual inspection for oil and a review of annual soil sampling records. In addition, eighteen soil samples will be collected at six random locations in area "B", at depths of 6 inches, 18 inches and 36 inches, and analyzed for Total Petroleum Hydrocarbons.

3.2 Concrete: All visible stains of oil on concrete surfaces will be steam cleaned with high-pressure steam.

3.3 Soil: Contaminated soil will be removed and disposed of according to its hazardous waste classification.

ATTACHMENT 60

CLOSURE COST ESTIMATE

Assuming the worst case scenario, a review of all activities involved in closure of the facility, including disposal of all liquid and solid waste, cleaning of all treatment, storage and secondary containment structures and the independent coordination, supervision and approval of cleanup operations by an independent engineer has been prepared to obtain cost estimates for work involved. Cost estimates have been obtained from third party contracting and engineering firms, which have agreed to complete all tasks as listed for closure of the facility.

Cost estimates are based on the actual review of work required to meet the Closure Plan requirements. These costs include all line items, as listed in the following publications:

- Guidance Manual: Cost Estimates for Closure and Post-Closure Plans (Subparts G and H) Volume 1 - Treatment and Storage Facilities

Line item costs for units of electricity, materials, equipment and labor are not independently listed. The fees associated with each individual closure include all utilities, materials, labor and equipment, necessary for the contractor and the engineer to satisfy the requirements of closure for the facility.

ATTACHMENT 61

CLOSURE ACTIVITY — ASSOCIATED COST

1. Liquid Disposal

All liquid will be pumped from the product, waste and water tanks for transportation and disposal at an off-site facility, permitted to accept the material. The maximum capacity of all tanks presently on-site at the facility is 210,000 gallons.

Disposal of all liquid has been estimated using the maximum charge per gallon for disposal, s provided by the contractor.

250,000 gallons x $0.32/gallon — $80,000.00

Transportation of all liquid wastes off-site has been quoted at $200.00 per load. This fee includes vacuum truck, round-trip mileage (estimated at 20 miles) to disposal facility, and vehicle operator. Each load has a capacity of 5,000 gallons; the total number of loads to transport for disposal the maximum volume of waste, product and water at the facility is 50 loads.

50 loads x $200.00/load — $10,000.00

A load verification charge of $40.00/load will be charged at the facility prior to acceptable of each load for treatment and/or disposal. This charge covers load verification analysis.

50 loads x $40.00/load — $2,000.00

2. Tank Cleaning

Clean and decontaminate nine (9) existing treatment and storage tanks; provide gas-free certification for non-hazardous vessel. Includes labor (OSHA certified competent persons to enter and clean tanks, foremen, laborers, etc.), equipment (vacuum truck, pumps, steam jenny, monitoring equipment, etc.) materials (water, degreasing agents, absorbent pads, DOT approved drums, etc.), disposal cost for all cleaning agents and residues and generator cost in the event of non-availability of electrical power.

Tank: Two (2) 42,000 gallon Product Storage Tanks
Two (2) 42,000 gallon Insulating Heating Tanks
One (1) 42,000 gallon Wastewater Tank
Three (3) 10,000 gallon Insulating Heating Tanks
Two (2) 10,000 gallon Wastewater Tanks

$12,000.00

ATTACHMENT 62

CLOSURE ACTIVITY	ASSOCIATED COST

3. Secondary Containment Cleaning

Cleaning and decontaminate three concrete wall secondary containment areas, including removal and stockpiling of gravel cover for disposal. Cost includes labor (foreman, laborers, etc.), equipment (vacuum truck, pumps, steam jenny, monitoring equipment, shovels, etc.) materials (water, degreasing agent, absorbent pads, DOT approved drums, etc.), disposal cost for all cleaning agents and residues, except gravel and dirt cover in containment area "B", and generator cost in the event of non-availability of electrical power.

4. Disposal of Solid Wastes

Loading, transportation and disposal of solid waste generated during operations in items 3 and 4. Volume of waste for disposal calculated to be 415 cubic yards. Transportation and disposal costs are calculated at $108.00/ton.

$44,800.00

All solid waste on-site shall be stockpiled together and composited for disposal. Four (4) samples shall be collected for waste material verification, as required, by the disposal facility. The cost for this analysis is $600.00 per sample.

$2,400.00

ATTACHMENT 63

CLOSURE ACTIVITY	ASSOCIATED COST

5. Engineering - Implementation of Closure Sampling Plan

Provide field crew, materials (including jars, decontamination materials, protective clothing, etc.) and equipment (augers, trowels, etc.) necessary to implement Soil Sampling Plan for closure.

$900.00

6. Engineering - Supervision of Contractor Site Cleanup

Provide environmental technician to inspect and document all contractor activities on-site, as outlined in items 1 through 5. Provide project manager to coordinate all activities related to on-site closure activities and review closure activities to assure compliance with approved plan.

$3,040.00

7. Engineering - Certification of Site Closure

Provide a professional engineer, licensed in the State of New Jersey, to prepare documents certifying closure has been completed in accordance with approved plan.

8. Engineering - New Jersey Certified Laboratory Analysis

Provide laboratory analysis, by a New Jersey Certified laboratory, in accordance with the Soil Sampling and Analysis Plan for site closure. As per the plan, the following fees are associated with proposed analysis:

Total Petroleum Hydrocarbons, soils, 20 @ $75.00	$1,500.00
RCRA Analysis - Product Oil for disposal	$ 680.00
RCRA Analysis - Waste Oil for disposal	$ 680.00
RCRA Analysis - Waste Water for disposal	$ 680.00
RCRA Analysis - Waste Solids for disposal	$ 670.00

TOTAL ESTIMATED CLOSURE COSTS

CONTRACTOR	$154,200.00
ENGINEER	$ 9,100.00
SUB TOTAL	$163,300.00
10% ADMINISTRATIVE CONTINGENCY	$ 16,300.00
20% ENVIRONMENTAL INCIDENT CONTINGENCY	$ 32,600.00
TOTAL	$212,200.00

ATTACHMENT 64

CASIE
enterprise
A Division of Recultz, Incorporated

PART B
18.
&
19.

Need financial assurance Mechanism (from bank)

C. R. Warner
East Lake Road
Woodstown, NJ 08098

Attention: Barry Warner

RE: Up-dated Engineering Estimate of Closure Cost for C. R. Warner, Inc.

PROCEDURE:

Item 1. All saleable oil shall be pumped into trucks and delivered to the buyer.

Item 2. The oil sludge shall be pumped into vacuum trailers of 5400 gallon capacity. This material will be delivered to Casie Ecology Oil Salvage, 3209 N. Mill Road, Vineland, New Jersey, 08360, EPA ID Number NJD045995693.

Item 3. All excess sand and dirt will be removed and trucked to the Casie Ecology Oil Salvage Facility, 3209 N. Mill Road, Vineland, New Jersey, 08360, which is licensed for this type of disposal; EPA ID Number NJD45995693, Facility Permit Number 0614D.

Item 4. The dike areas will be squeegeed tight to remove any of the contamination. The rinse water will be delivered to Chem-Clear, Inc., Delaware & Jeffrey, Chester, PA, 19013. EPA ID Number PAD000731026.

COST ESTIMATES:

Item 1.	Will be completed at a profit.	
Item 2.	2 Vac Trailers - 8 Hrs ea $60.00 ph	$ 960.00
	Labor 18 MH @ $28.00 ph	$ 504.00
	Haul & Dispose of 6550 gals of oily sludge @ .32 per gallon.	$2,096.00
	Total of Item 2.	$3,560.00

ATTACHMENT 65

CASIE
enterprise
A Division of Results, Incorporated

C. R. Warner, Inc.
East Lake Road
Woodstown, NJ 08098

Item 3.	Remove approximately 44 tons (if any) sand or excess dirt and load into tractor trailers @ $155.50 per ton. Haul to Casie Ecology Oil Salvage with proper manifesting. Estimated 2 loads.	$6,842.00
	Total Item 3.	$6,842.00
Item 4.	Squeegee & rinse dike area	$ 240.00
	Labor 18 MH @ $28.00 ph	$ 504.00
	1 Vac. Trailer - 8 HRS @ $60.00 ph	$ 480.00
	Total Item 4	$1,224.00
	TOTAL ITEMS 2 thru 4.	$11,626.00

If there are any further questions regarding this quote, please do not hesitate to contact me at the office at (609) 696-4401.

Sincerely,

Greg W. Call
Sales Manager

GWC/jav

ATTACHMENT 66

Appendix L

Environmental Risk Assessment

ATTACHMENT 69

PILKO & ASSOCIATES, INC.

Risk Management/Industrial Development/Environmental Management

ENVIRONMENTAL RISK ASSESSMENT

OF

C. R. WARNER, INC.

WASTE OIL RECOVERY FACILITY

WOODSTOWN, NEW JERSEY

Prepared For

C. R. WARNER, INC.

For PILKO & ASSOCIATES, INC.

W. Mackey Skinner

W. P. Anderson

October, 1987

EAST COAST OFFICE:
ONE GREENTREE CENTRE, SUITE 201
MARLTON, NEW JERSEY 08053
(609) 596-0335

HEADQUARTERS:
2707 NORTH LOOP WEST, SUITE 960
HOUSTON, TEXAS 77008
(713) 861-1417
TELECOPIER: (713) 861-6210
TELEX: 26-5670

WEST COAST OFFICE:
5850 CANOGA AVE., SUITE 400
WOODLAND HILLS, CALIFORNIA 91367
(818) 716-9311

ATTACHMENT 68

TABLE OF CONTENTS

ATTACHMENT 69

A.

INTRODUCTION

Pilko & Associates, Inc. performed an Environmental Risk Assessment (ERA) during July, 1987, to determine the general environmental condition of C. R. Warner, Inc. (Warner) in support of an application for environmental impairment liability (EIL) insurance.

Warner, a privately held corporation in Woodstown, New Jersey, recovers waste oils for resale as industrial burner fuel. The company will process approximately five million gallons of waste oils at the Woodstown facility in 1987.

This assessment focuses on identifying and evaluating gradual and sudden & accidental environmental risks and liabilities associated with the Warner operation. A variety of information sources such as regulations, industry standards, and guidelines are utilized in performing an ERA. However, this assessment is not intended to serve as a rigorous environmental compliance audit.

The following people were interviewed during the site visit on July 16-17, 1987, and by telephone conversations after the site visit:

C. R. Warner, Inc.

- Mr. Barry Warner, President
- Mrs. Delores Warner, Vice President

State of New Jersey Department of Environmental Protection
Division of Waste Management

- Ms. Carolyn Grasso, Environmental specialist, Southern Region Office, Gibbsboro, New Jersey

ATTACHMENT 10

B.

SUMMARY

GENERAL

C. R. Warner, Inc. personnel appeared knowledgeable about environmental regulations affecting the operation as a result of the extensive time period (four years) required to secure a permit to operate a waste oil storage and reclamation facility. Management appeared committed toward operating the facility within applicable regulations and at low risk. The only areas of concern at the facility are the underground No. 2 Fuel Oil storage tanks and the uncoated underground waste oil transfer pipe. The concern is mitigated by the extensive, relatively impermeable clay under the property protecting groundwater located at 160 feet below ground surface. However, Pilko & Associates, Inc. recommends conducting integrity testing coupled with leak monitoring of the tanks, or removing the tanks and underground pipeline and replacing them with aboveground facilities.

Warner, a privately held corporation, operates a waste oil storage and reclamation facility on a two-acre site near Woodstown, New Jersey. The facility, built on previously undeveloped land, is located in a predominately rural setting completely surrounded by pastureland. The nearest residence is located approximately one-quarter mile south of the facility.

The site is underlain by sand and relatively impermeable clay extending down over 100 feet below ground surface. Shallow groundwater has been identified at two feet below surface, but is not very extensive, and is not used as a drinking water source. The deeper aquifer found at 160 feet below ground surface provides water supply for the area. This water is very hard and has a high natural iron content. The surface area drains west into Nichomus Run, then into the Salem River which flows approximately ten miles west into the Delaware River, which is not designated as a drinking water source in this area.

Waste oil is reclaimed by noncontact heating of the oil with steam to promote the separation of water and solids from the oil. Recovered oils are blended and sold as industrial burner fuel.

Warner disposes waste generated from the oil reclamation facility in permitted facilities. These wastes are transported under manifests as hazardous wastes. Oil waste generated from laboratory samples and truck internal washing are combined with incoming waste oils and recovered in the reclamation unit. Wastewater recovered from the oil is transported to an industrial wastewater treatment facility for

ATTACHMENT 21

disposal. The company does not dispose any waste onsite and no inactive waste sites have been identified on the property.

Wastewaters from steam generation, external truck wash, and sanitary wastewater flow via closed sewer into two concrete inground accumulation sumps. No wastewater is treated or discharged onsite. These waters are periodically removed from the sump using a vacuum truck and transported to a municipal wastewater plant for disposal.

Air emissions from the plant are negligible because of the low volatility oil processed at the facility.

No asbestos is used at the facility.

Waste oils are analyzed for polychlorinated biphenyl (PCB) content. Recent laboratory test analyses show contents of 2.5 parts per million (ppm).

Firefighting is provided by a local volunteer fire department. Annual fire drills and emergency drills are conducted annually by the fire department at the Warner facility.

Warner has no formal safety program; however, with the very low employment at the plant facility, the President is actively involved in all aspects of the operation.

The plant has a security fence completely around the site with controlled access.

Housekeeping at the facility is very good. Equipment appeared to be very well maintained.

RISK ASSESSMENT RATINGS

Gradual

The Warner oil reclamation facility is considered to represent a slightly below average exposure from gradual occurrences based on: 1) the relatively impermeable clay underlying the site, 2) the depth of 160 feet to usable ground water, 3) no inactive waste sites on the property, 4) wastes disposed offsite, and 5) wastewater disposed offsite. There is concern for the two underground steel fuel storage tanks and an underground oil transfer line. Mitigating these concerns is the total capacity of the two underground fuel oil tanks of only 2,000 gallons and the capacity of the underground transfer line of only 46 gallons.

ATTACHMENT 12

Sudden & Accidental

The facility is considered to represent a slightly below average-to-below average exposure from sudden & accidental occurrences because of: 1) the low hazard potential of the oils processed, 2) secondary containment around the aboveground storage tanks, and 3) the one-quarter mile distance to the nearest residence. There is some concern for the combustible nature of the oils stored at the facility.

ATTACHMENT 13

FACILITY OVERVIEW

Location	Risk Ratings	Issues of Concern	Mitigating Factors
Woodstown, NJ EPA ID#: NJD011881174 Zip Code: 08098	Gradual: Slightly below average	o Two underground fuel storage tanks o Underground oil transfer pipeline	o Relatively impermeable clay underlying the site o Depth of 160 feet to usable groundwater o No inactive waste sites o Wastes disposed offsite o Wastewater disposed offsite
	Sudden & Accidental: Slightly below average-to-below average	o Combustible oils stored onsite	o Low hazard potential of oils processed o Secondary containment around all aboveground storage tanks o One-quarter mile to nearest residence

ATTACHMENT 14

RECOMMENDATIONS

The following recommendations, with suggested time intervals for completion, are made as a condition of the risk ratings assigned.

87-1 Conduct tank integrity testing or leak detection monitoring on underground fuel storage tanks to reduce the potential of soil and groundwater contamination. (Annually)

87-2 Conduct integrity testing of the underground oil transfer lines or replace with overhead line to reduce the environmental exposure. (Annually)

87-3 Modify the SPCC Plan to address storage tank operations and have the plan certified by a Registered Professional Engineer (3 months)

ATTACHMENT 75

C.

ORGANIZATION

ENVIRONMENTAL AFFAIRS MANAGEMENT

At C. R. Warner, Inc., the President is responsible for environmental affairs management. He is intimately involved with the daily operation of the facility and personally handles compliance issues for the facility. In his absence, these functions are delegated to the Vice President.

Permitting and legal support for environmental matters is provided by counsel retained by Warner. With the limited staff at the company, this appears to be an effective support for environmental management.

ATTACHMENT 16

D.

C. R. WARNER FACILITY ASSESSMENT

DESCRIPTION OF FACILITY

The C. R. Warner, Inc. (Warner) facility is situated on two acres located on East Lake Road near Woodstown, New Jersey (Attachment 1, Location Map). The site was pastureland prior to occupation by Warner and presently is surrounded by pastureland. The general area is sparsely populated, with the nearest neighbor located approximately one-quarter mile south of the facility.

Warner, originally a home heating oil jobber, was started in 1938 by the President's father. The company moved to the present site in 1972 and continued to sell home heating oil until this business was sold in 1982. The company applied for a waste oil processing permit in 1979. The final operating permit for the oil recovery facility was issued by the State of New Jersey, Department of Environmental Protection, in 1983. Three major structures have been installed on the property with a total area of 86,750 square feet, housing the administrative offices, the truck maintenance shed, boiler house, and storage area (Attachment 2, Site Plan). Warner employs five people working daylight hours, five-days-per-week.

The facility is situated on essentially flat ground at an elevation of approximately 40 feet above mean sea level. Subsurface soils are composed of interbedded layers of sand and clay down to 15 feet (Attachment 3, Test Boring "A"). Shallow groundwater has been identified at two feet below ground surface and is underlain by dense brown and gray relatively impermeable clay layers. An aquifer is found at 160 feet below ground surface which provides water for this facility. Area water supplies are also drawn from this aquifer. The company reports that this water is very hard and has a high natural iron content. Surface area drains into Nichomus Run which flows four miles to the northeast before entering the Salem River near Sharptown, New Jersey. Salem River flows ten miles west before entering the Delaware River. The Delaware River in this area is tidal and is not used as a drinking water source.

OPERATIONS

Warner receives only selected waste oils having a maximum bottom sludge and water (BS&W) content of 20 percent. The Company expects to process approximately 5 million gallons of waste oil during 1987. They do not process oil that is picked up by vacuum trucks and are not permitted to handle waste oil in 55-gallon drums. The Company has a hazardous waste facility permit issued by the State of New Jersey, Department of Environmental Protection.

ATTACHMENT 7

Warner received a Permit No. 1709B for the operation of a waste oil storage and reclamation facility (Attachment 4, Hazardous Waste Facility Permit). The permit was issued on November 10, 1983, and subsequently modified in May, 1984. The Company is permitted to process waste lubricating oils from gasoline stations and commercial businesses, tank cleanout from residential or commercial fuel oil tanks, oils recovered from a spill cleanup, metal working oils, turbine lubricating oils, diesel lubricating oils, quench oils, and waste oils from electric transformers having polychlorinated biphenyls (PCBs) having concentrations less than 50 parts per million (ppm).

Waste oil is delivered to the Warner facility in bulk tank trucks owned by suppliers or picked up in bulk tank trucks owned by Warner. A sample of the oil is taken and analyzed for BS&W prior to unloading into a bulk storage tank. Oil containing two percent or less BS&W is placed into a product storage tank for resale without any treatment. All other waste oils are pumped through a basket filter into the waste oil storage tank. This waste oil is then pumped into a insulated tank heated by a steam coil. The heating promotes the separation of water and solids from the oil and allows the water and solids to settle. Water and solids are drawn off the bottom of the tank and pumped into the wastewater storage tank. The recovered oil is pumped into a product oil tank. The wastewater is transported, under manifest, to Chem-Clear, Inc. in Chester, Pennsylvania for disposal in an industrial wastewater treatment plant (Attachment 5, Uniform Hazardous Waste Manifest). Solids removed from the oil are transported under manifest to Resultz, Inc. in Vineland, New Jersey for disposal in a permitted hazardous waste landfill (Attachment 6, Uniform Hazardous Waste Manifest). Recovered oils are sold to Royal Petroleum and Diamond Petroleum, both located in Philadelphia, Pennsylvania. Recovered oil is used in No. 6, No. 5, and No. 4 Fuel Oil blends which are sold as industrial burner fuels. These oils are tested for regulated substances to ensure compliance with regulatory permits (Attachment 7, Century Laboratories - Chemical Analysis).

Warner has a 100-horsepower, No. 2 Fuel Oil fired boiler which generates 15 pounds per square inch (psi) steam which is used for noncontact heating of the waste oil. All water used at the site is obtained from an onsite water well. Electricity is purchased from Atlantic City Electric Company.

SOLID AND HAZARDOUS WASTE MANAGEMENT

The Warner facility has been designated a hazardous waste facility by the New Jersey Department of Environmental Protection (DEP) for which a permit has been obtained as discussed in the Operations section. However, the plant is not considered to be a hazardous waste facility as defined by the Resource Conservation and Recovery Act (RCRA). The company does manifest waste generated from the oil reclamation facility. The DEP conducts periodic inspections of the

ATTACHMENT 78

plant for compliance. In addition to the waste described in the Operations section, Warner also generates sludge from washing bulk truck tank internal, laboratory samples, and plant trash.

Each time the DEP conducts a plant inspection a copy of the inspection and findings are given to the company (Attachment 8, Inspection Report). Management reports no noncompliance items have been found in the last year.

Sludges from Warner tank trucks are removed by rinsing the truck with waste oil received. The oil containing sludges from the truck is then combined with the other waste oils for treatment at the facility. Laboratory samples are combined with waste oils received and processed with them.

Plant trash is transported by company truck to a landfill operated by Pilesgrove Township. Warner does not dispose any waste at their facility.

Waste management activities at the Warner facilities do not appear to represent a significant environmental exposure because of the relatively low hazard of the oil processed, the offsite disposal of all waste, and the procedures employed by the company to handle these wastes.

WATER MANAGEMENT

Warner obtains all water requirements from the onsite water well. Water is used for boiler feed make-up, external truck washing, drinking, and sanitary purposes. Boiler feedwater make-up is softened with a Zeolite resin. The steam is used for noncontact heating of the waste oils to promote separation of water and solids. Condensate from the steam heating coils is recycled back to the boiler for reuse. Wastewaters generated are boiler blowdown, softener backwash, truck washwater, and sanitary wastewater.

All the wastewaters flow by closed sewer into one of two 3,000-gallon inground, concrete tanks. Periodically these wastewaters are removed by a vacuum truck and transported to a publicly owned wastewater treatment works (POTW) in Bridgeton, New Jersey, for treatment. These wastewaters have not been commingled with water removed from lubricating oils; consequently, they do not require routine testing prior to disposal.

Water management at Warner does not appear to represent a significant environmental exposure because of the relatively low hazard potential of the wastewaters generated. Also, wastewaters are treated offsite in a POTW and represent a very low percentage flow volume to the POTW.

ATTACHMENT 19

INACTIVE WASTE SITE IDENTIFICATION

Warner has not identified any inactive waste sites on their property.

SPILL CONTAINMENT AND CONTINGENCY PLANNING

Waste oil storage and reclamation is conducted in aboveground tanks. The facility has two underground fuel oil tanks. A Spill Prevention Control and Countermeasure (SPCC) Plan has been prepared for the facility storage tanks. The facility has an underground oil transfer line between the storage tanks and the steam-heated process tank.

The SPCC Plan developed by Warner appears adequate to handle spills and leaks from trucks that enter the property for loading or unloading (Attachment 9, SPCC Plan). However, the Plan does not address the storage tank operation. Pilko & Associates recommends modifying the SPCC Plan to include the storage tanks and operation. We also recommend that the Plan be reviewed by a professional engineer to ensure compliance with the federal regulations found in 40 CFR, Part 112.

The aboveground oil reclamation storage tanks are situated on concrete foundations inside concrete containment walls. Drainage is controlled using valves normally kept in the closed position.

Two 1,000-gallon underground storage tanks provide No. 2 Fuel Oil for the boiler and space heating of the office building. The tanks are constructed of a asphalt-coated steel but do not have cathodic protection. These tanks do not appear to represent a serious environmental exposure for groundwater contamination because of the relatively impermeable clay underlying the property. Pilko & Associates recommends conducting integrity testing and leak detection monitoring or relocating the tanks aboveground to reduce the exposure. The underground oil transfer line is a steel line with a heavy wall thickness. The pipe is not coated or wrapped, creating concern for more rapid corrosion of the pipe. However, the pipeline is a nominal two-inch line having a storage capacity of approximately 46 gallons of oil. Management reported that when the line is not in operation, it is isolated by block valves. The underlying relatively impermeable clays lower the potential for oil penetrating into the groundwater. Pilko & Associates recommends conducting integrity testing of this pipeline or replacement with an overhead oil line to reduce the environmental exposure.

Waste oil trucks are loaded and unloaded on a concrete pad which is sloped to a sump to collect spills and leaks. The sump has a pump to remove spilled oil and place it in a storage tank. Also, the sump may be opened to allow for oil to flow into a tank containment area in the event of a very large spill.

ATTACHMENT 20

Warner bulk tank truck exteriors are washed in the maintenance building on a concrete floor which is sloped to a drain flowing into the 3,000-gallon inground concrete sumps. The containment of the washwaters in the sump reduces any concern for potential soil contamination which may result from the truck washwater.

AIR

The facility has an operation certificate which is automatically renewed annually. The low volatility and the type of oil handled by the facility reduces the potential for air emissions. Management reports that there have been no odor complaints about the facility operation.

OTHER AREAS

Asbestos

Warner reports that no asbestos is used or stored on the plant site.

Polychlorinated Biphenyls (PCBs)

Warner management reports that no PCBs are stored or used on site. As a part of the hazardous waste permit issued by the State of New Jersey, Department of Environmental Protection, the plant is not authorized to handle oil containing PCBs in excess of 50 ppm. Analytical results reviewed showed that PCB content of oils processed by Warner are approximately 2.5 ppm (Attachment 10, Century Laboratories - PBC Analysis).

Fire Protection

Warner has hand-held fire extinguishers in the building for fighting small fires. A volunteer fire department provides the primary firefighting support for the facility. The company reports that the fire department conducts an annual fire drill at Warner, which is supported by local emergency services.

Security

The Warner facility has a security fence around the entire property. The access to the facility is controlled through a front gate that is locked at the end of the working day. The township police department provides surveillance through routine police patrol.

ATTACHMENT 81

Safety

"No Smoking" signs are posted at the front gate. However, there are no formal safety procedures. With the small number of employees at the facility, this does not appear to be a serious problem.

Housekeeping

During the site visit, the housekeeping at the Warner facility was observed to be very good.

Regulatory Agency Contact

A representative of the New Jersey DEP Division of Hazardous Waste Management reports that Warner has been in total compliance with their waste permit since it was issued. She reports that the management is very competent and responds in timely fashion to any problems.

ATTACHMENT 82

E.

REPORT LIMITATIONS

The scope of this report is limited to the matters expressly covered. This report is prepared for the sole benefit of C. R. Warner, Inc., and may not be relied upon by any other person or entity without the written authorization of Pilko & Associates, Inc.

In preparing this report, Pilko & Associates, Inc. has relied on information derived from secondary sources and personal interviews. Except as set forth in this report, Pilko & Associates, Inc. has made no independent investigation as to the accuracy or completeness of the information derived from the secondary sources and personal interviews and has assumed that such information was accurate and complete.

All recommendations, findings, and conclusions stated in this report are based upon facts and circumstances as they existed at the time that this report was prepared (e.g., Federal, State and local laws, rules, regulations, market conditions, energy costs, wage rates, political climate, and other matters that Pilko & Associates, Inc. deemed relevant). A change in any fact or circumstance upon which this report is based may adversely affect the recommendations, findings, and conclusions expressed in this report.

NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY. PILKO & ASSOCIATES, INC. MAKES NO REPRESENTATION OR WARRANTY THAT THE IMPLEMENTATION OR USE OF THE RECOMMENDATIONS, FINDINGS, OR CONCLUSIONS OF THIS REPORT WILL RESULT IN COMPLIANCE WITH APPLICABLE LAW.

ATTACHMENT 83

ATTACHMENT C

let's protect our earth

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF HAZARDOUS WASTE MANAGEMENT

Michele M. Putnam
Deputy Director
Hazardous Waste Operations

John J. Trela, Ph.D., Director
401 East State St.
CN 028
Trenton, N.J. 08625-0028
(609)633-1408

Lance R. Miller
Deputy Director
Responsible Party Remedial Action

Hazardous Waste Facility Permit

Under the provisions of N.J.S.A. 13:1E-1 et seq. known as the Solid Waste Management Act, this permit is hereby issued to:

C.R. Warner, Inc.
P.O. Box 134
East Lake Road
Woodstown, New Jersey 08098

For the Purpose of Operating a:	Waste oil storage and reclamation facility
On Lot No.:	2-1
Block No.	74
In the Municipality of:	Pilesgrove Township
County:	Salem
Under Facility Permit No.:	1709B1HP02

This permit is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection.

This permit shall not prejudice any claim the State may have to Riparian land nor does it permit the registrant to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be Riparian, Wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or allow the discharge of pollutants to waters of this State without first acquiring the necessary grants, permits, or approvals from the Department of Environmental Protection or the U.S. Environmental Protection Agency.

March 23, 1989
Date

Frank Coolick
Acting Assistant Director

March 23, 1994
Expiration Date

Scope of Permit

This permit along with the referenced permit application documents herein specified shall constitute the sole Hazardous Waste Facility Permit for the operation of a waste oil storage and reclamation facility by C.R. Warner, Inc. located in Pilesgrove Township, Salem County, New Jersey. Any Registration, Approval or Permit previously issued by the Division of Hazardous Waste Management or its predecessor agencies is hereby superseded. The permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized by an emergency permit (N.J.A.C. 7:26-12.9).

Regulated Activities at the Facility

Section I of this permit contains the general conditions applicable to all hazardous waste facilities. Section II of this permit contains specific conditions applicable to hazardous waste management activities at the facility. This permit regulates the storage and reclamation of waste oil at C.R. Warner.

Description of Hazardous Waste Activities

Waste oil is delivered to the facility in tank trucks. From the tank trucks, the oil is pumped through filters into one of six tanks. The oil may be heated in insulated tanks heated by steam coils. The heating promotes separation of water and solids from the oil and allows the water and solids to settle. Water and solids are drawn off the bottom of the tanks and pumped into one of two waste water tanks. The recovered oil is pumped into product oil tanks. From the product oil tanks, the oil is pumped through filters into trucks for sale off-site. The recovered oils are sold for use in No. 6, No. 5, and No. 4 fuel oil blends which are used as industrial burner fuels. Wastewater and solids removed from the oil are transported off-site, under manifest, to a licensed treatment or disposal facility.

ATTACHMENT 2

Section I

General Conditions Applicable to Commercial Hazardous Waste Facility Permits

The permit is conditioned upon compliance with and implementation of the following:

1) Duty to Comply

The permittee shall comply with all conditions of this Permit. Any permit non-compliance constitutes a violation of the Solid Waste Management Act (N.J.S.A. 13:1E-1.1 et seq.) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Any generator, hauler, facility operator or any other person who discharges or is responsible for discharge of hazardous waste on land or in the waters of the State of New Jersey or at any place other than an approved hazardous waste facility shall be subject to penalties pursuant to N.J.S.A. 58:10A-1 et seq.

2) Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must submit a complete application for a new permit at least 180 days prior to permit expiration.

3) Duty to Halt or Reduce Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4) Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from non-compliance with this permit.

5) Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup

or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit.

6) Permit Actions

This permit may be modified or revoked and reissued for cause pursuant to N.J.A.C. 7:26-12.6. Also, the Department reserves the right to terminate an existing permit for cause pursuant to N.J.A.C. 7:26-12.7.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination or a notification of planned changes or anticipated non-compliance, does not stay any permit condition.

7) Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

8) Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

9) Right of Entry

The permittee shall allow an authorized representative of the Department upon presentation of credentials to:

a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;

b) Have access to and copy any records that should be kept under the conditions of this permit;

c) Inspect any facilities, equipment (including monitoring control equipment), practices, or operations regulated or required under this permit; and

d) Sample or monitor for the purposes of assuring permit compliance or as otherwise authorized by the Solid Waste Management Act (N.J.S.A. 13:1E-1.1 et seq.), any substances at any location.

10) Monitoring and Records

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

ATTACHMENT 4

a) The permittee shall retain records of all monitoring information, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time.

b) Records of monitoring information shall include:

1) the date, exact place, and time of sampling or measurement;

2) the individual(s) who performed the sampling or measurements;

3) the date(s) analyses were performed;

4) the individual(s) who performed the analyses;

5) the analytical techniques or methods used; and

6) the results of each analysis.

11) Signatory Requirement

All applications, reports, or information submitted to the Department shall be signed and certified pursuant to N.J.A.C. 7:26-12.2(1).

12) Reporting Requirements

a) Upon issuance of this permit, the permittee shall comply with the procedure outlined in condition 12(a)1 below. Failure to comply with the aforementioned procedure shall be cause for immediate revocation of this permit:

1) The permittee shall submit to the Department, by certified mail or hand delivery, within thirty (30) days of the effective date of this permit, a letter signed by the permittee and a registered professional engineer, who is licensed by the State of New Jersey, stating that the facility layout and design is in compliance with the Engineering Plans and Reports cited in Condition 1(a) of Section II of this permit. This shall include the submittal of a revised set of the engineering drawings cited in Condition 1(a) of Section II of this permit, if necessary. If applicable, these drawings shall be signed and sealed by a New Jersey licensed professional engineer; and

2) The Department shall inspect the facility to determine whether or not it is in compliance with the designs set forth in the Engineering Plans and Reports, and whether the operations of the facility are in compliance with the conditions of this permit. If within 15 days of the date of submission of the letter in Condition 12(a)(1) of this section, the permittee has not received from the Department notice of intent to inspect, prior inspection is waived and

ATTACHMENT 5

it is understood that the facility meets the design requirements. If the facility is not in compliance with the approved design and other conditions of this permit, a schedule shall be submitted within thirty (30) days of the date of the Department's inspection, outlining how the facility will be brought into compliance. The schedule shall be subject to the Department's approval.

b) Planned Changes

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. The permittee shall obtain Departmental approval, prior to implementation, for any such alteration or addition subject to Departmental regulations or the conditions of this permit, including permit modification or permit revocation and reissuance, if necessary.

c) Anticipated Noncompliance

The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. Such advance notice shall not stay the applicability of said permit requirements or the applicability of Condition 1 of this permit, nor shall it relieve the permittee from the obligation to obtain all necessary Departmental approvals of said changes prior to implementation, including permit modification, permit revocation and reissuance, or issuance of an emergency permit, when necessary.

d) Transfer of Ownership or Operational Control

1) Permits issued pursuant to N.J.A.C. 7:26-12.1 et seq. are not transferable directly to a new owner or operator.

2) The permittee shall notify the Department at least 180 days in advance of any proposed change of ownership or operational control of a facility. The notice shall include:

i) A Disclosure Statement prepared by the prospective new permittee meeting the requirements of N.J.A.C. 7:26-16.4;

ii) A written agreement between the existing permittee and the proposed new permittee containing a specific future date for transfer of permit responsibilities coverage and liabilities between them;

iii) A demonstration that the financial responsibility requirements of N.J.A.C. 7:26-9.10 and N.J.A.C. 7:26-9.13 will be met by the proposed new permittee.

ATTACHMENT 6

3) A new owner or operator may commence operations at the facility only after the existing permit has been revoked and reissued pursuant to N.J.A.C. 7:26-12.6(c).

4) The permittee of record remains liable for ensuring compliance with all conditions of the permit unless and until the existing permit is reissued in the name of the new owner or operator.

e) Manifest Discrepancy

The following reports shall also be submitted:

1) If a discrepancy in a manifest is discovered, the permittee shall attempt to reconcile the discrepancy. Within one week, the permittee shall submit a letter report, including a copy of the manifest, to the Department. Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives.

i) Discrepancies in quantity for bulk waste are variations greater than one percent in weight.

ii) Discrepancies in type are differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

2) An unmanifested waste report shall be submitted to the Department within 15 days of receipt of unmanifested waste.

f) Annual Reports

The permittee must prepare and submit two copies of a facility annual report to the Department as per N.J.A.C. 7:26-7.6(f)2 by March 1 of each year, covering the previous calendar year's hazardous waste facility activities.

g) Discharge and Other Emergency Reporting

The permittee shall report any noncompliance which may endanger human health or the environment. The following information shall be reported orally to the Department immediately after the permittee becomes aware of the circumstances by calling (609) 292-7172 (24 Hours).

1) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

2) Any information of a release or discharge of hazardous waste, or a fire or explosion from a hazardous waste facility which

ATTACHMENT 7

could threaten the environment or human health outside the facility.

3) The description of the occurrence and its cause shall include:

i) Name, address, and telephone number of the owner or operator;

ii) Name, address, and telephone number of the facility;

iii) Date, time and type of incident;

iv) Name and quantity of material(s) involved;

v) The extent of injuries, if any;

vi) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

vii) Estimated quantity and disposition of recovered material that resulted from the incident.

A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances to the address in Section (j) of this condition. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

h) Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Section (c) or (g) of this Condition within 30 days of the time the permittee becomes aware of the noncompliance. The reports shall contain the information listed in Section (g) of this Condition.

i) Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

j) Department Address

All reports and submittals required by this permit are to be submitted to the Department of Environmental Protection at the following address:

ATTACHMENT 8

Department of Environmental Protection
Division of Hazardous Waste Management
Chief, Bureau of Hazardous Waste Engineering
CN028
Trenton, New Jersey 08625

Copies of all submittals shall also be sent to the Regional Office of the Bureau of Field Operations.

13) Preparedness and Prevention Plan

The permittee must equip the facility with emergency equipment in order to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous wastes or hazardous waste constituents to the air, surface water, or ground water which could threaten the environment or human health. The facility's equipment must include, but not be limited to, the following:

a) Portable fire extinguishers placed in locations throughout the facility.

b) An adequate water supply shall be maintained on-site or be available to fight fires and provide cooling during emergencies.

c) Telephone communications must be locally maintained to summon emergency assistance from local fire departments, police departments, state or local emergency response teams.

d) Spill containment structures must be maintained free of cracks or gaps.

e) Absorbent compounds must be readily available within the facility to be employed if a spill should occur.

f) All preparedness and prevention equipment shall be tested and maintained as necessary to assure its proper operation in time of emergency.

14) Personnel Training

a) Facility personnel shall successfully complete a program of classroom instruction or on-the-job-training that teaches them to perform their duties in a way that insures the facility's compliance with the requirements of N.J.A.C. 7:26-9.4 (g), as stated in the facility's part B permit application, and as referenced in Condition 1(b) of Section II of this permit. New employees shall be trained within six (6) months of the date of employment.

b) The training program shall be maintained with records and documentation describing the type and amount of both introductory and continuing training that has been and will be given to each person engaged in hazardous waste management at the facility.

ATTACHMENT 9

15) Financial Requirements

a) The permittee shall continue to maintain financial responsibility for claims arising from the operations of the facility from sudden and accidental occurrences that cause injury to persons or property. The permittee shall have and maintain liability insurance for sudden occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs.

The following is a summary of acceptable means to demonstrate financial responsibility for sudden and accidental occurrences under N.J.A.C. 7:26-9.13:

1) Submission of an originally signed duplicate of the insurance policy. This policy must be either:

i) Amended by attachment of an originally signed duplicate of a Hazardous Waste Facility Liability Endorsement; or

ii) An originally signed duplicate of a Certificate of Liability Insurance must accompany the policy as evidence of the coverage.

2) Passing a financial test for liability coverage according to N.J.A.C. 7:26-9.13(f).

3) Use of a combination of insurance and financial test.

b) The permittee shall continue the use of the financial assurance mechanisms in N.J.A.C. 7:26-9.10 to provide financial assurance for closure of the facility.

The following is a summary of the closure mechanisms that are allowed for facilities under N.J.A.C. 7:26-9.10:

1) Closure Trust Fund, N.J.A.C. 7:26-9.10(f)1;

2) Surety bond guaranteeing payment into a closure trust fund, N.J.A.C. 7:26-9.10(f)2;

3) Performance bond, N.J.A.C. 7:26-9.10(f)3.

4) Closure Letter of Credit and establishment of a standby trust fund at the time of the letter of credit is obtained, N.J.A.C. 7:26-9.10(f)4;

5) Closure Insurance, N.J.A.C. 7:26-9.10(f)5.

c) The wording of all financial documents (except for the insurance policy itself) that are submitted under 15(a) or 15(b) above must be exactly as specified in N.J.A.C. 7:26-9 (Appendix A).

ATTACHMENT 10

d) The permittee must adjust the facility's closure cost estimate for inflation within thirty (30) days after each anniversary of the date on which the first closure cost estimate was prepared. Whenever the current closure cost estimate increases to an amount greater than the amount of the financial mechanism, the permittee, within sixty (60) days after the increase, must either cause the amount of the financial mechanism to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Department, or obtain and document to the Department other financial assurance, as specified in N.J.A.C. 7:26-9.10, to cover the increase.

16) Operating Record

The permittee shall keep a written operating record at the facility in which the information in N.J.A.C. 7:26-9.4(i) shall be recorded. The information should be recorded as it becomes available and maintained until closure of the facility.

17) Posting of Notice

The notice concerning civil and criminal penalties for illegal disposal of hazardous waste must be conspicuously posted and available for all employees to read.

18) Early Expiration of Permit

If, for any reason, this facility ceases to be operated on a continuous basis and/or ceases to be operated by the owners or operators listed in the Disclosure Statement that was submitted, the permit expires of its own accord and remains ineffective until reissuance by the Department. This permit may be revoked if a full investigative report or subsequent investigation of the Disclosure Statement indicate reasons for disqualification.

19) Permit Limitations

a) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights or any infringement of applicable Federal, State, or local laws or regulations.

b) This permit does not constitute the sole source of guidelines to be followed. Any new or current regulations concerning Water Quality, Air Pollution, Hazardous Waste, or other rules of the Department of Environmental Protection, applicable to the facility shall be complied with at the effective date. Regulations are effective upon publication in the New Jersey Register or as otherwise indicated in the Notice of Adoption in the New Jersey Register.

20) Contingency Plan

ATTACHMENT 11

a) The provisions of the Contingency Plan included in the Part B permit application plus all amendments, revisions and modifications thereof subsequently submitted for review and accepted by the Department, and as referenced in Condition 1(b)5 of Section II of this permit, shall be carried out immediately whenever there is a fire, explosion or release of hazardous waste constituents which could threaten health or the environment.

b) In the event of an emergency an alarm system must be activated to alert employees. The local Fire and Police Department should be notified immediately. The telephone numbers are:

Fire Department: (609) 769-2233

Police Department: (609) 769-2121

c) If the facility has a discharge, fire, or explosion which could threaten human health or the environment, the following shall be notified immediately:

1) Environmental Protection Agency
Oil and Hazardous Materials Section
Raritan Depot, Edison, N.J. 08817
Telephone (201) 548-8730

2) New Jersey Department of Environmental Protection
Communication Center/ Trenton Dispatch
Bureau of Communication and Support Services
Trenton, NJ 08625
Telephone (609) 292-7172 (24 Hours)

d) The emergency coordinator's notification to both of the above two telephone numbers must include the following information:

1) Name and telephone number of person reporting;

2) Name and address of facility;

3) Time and type of incident (fire or explosion);

4) Name and quantity of material(s) involved, to the extent known;

5) The extent of injuries, if any; and

6) The possible hazards to human health, or the environment, outside the facility.

e) Semi-annual drills involving all employees and appropriate local authorities shall be conducted to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures developed pursuant to N.J.A.C. 7:26-9.7.

ATTACHMENT 12

21) Security

The permittee must maintain the security procedures as described in the facility's security plan, included in the Part B permit application plus all amendments, revisions and modifications thereof subsequently submitted for review and accepted by the Department, and as referenced in Condition 1 of Section II of this permit.

These procedures shall include:

1) Controlled entry at the main gate and all other access gates to the site.

2) An artificial or natural barrier, which completely surrounds the active portion of the facility. Maintenance of any fence which encloses the entire site.

3) Maintenance of warning signs posted with the legend, "Danger-Hazardous Waste Area - Unauthorized Personnel Keep Out", at each entrance of the hazardous waste management area, and also in sufficient numbers around this area, which can be seen from a distance of 25 feet.

ATTACHMENT 13

Section II

Specific Conditions Applicable to Hazardous Waste Facility Permits

1. Referenced Permit Application Documents

(a) The permittee shall operate the facility, and construct or install associated appurtenances thereto, in accordance with the hazardous waste management provisions of Title 7, Chapter 26 of the New Jersey Administrative Code, the conditions of this permit, and the following permit application documents:

1) Part B permit application dated May 8, 1988 and revisions dated July 20, 1988, August 9, 1988 and November 25, 1988.

2) The following engineering plans submitted as Appendix O of the May 8, 1988 Part B permit application:

i) Site plan, dated July 8, 1981 - revised July 8, 1982, signed and sealed by Albert A. Fralinger, P.E.

ii) Holding tanks, revised January 4, 1979, signed and sealed by Carl R. Gaskill, P.E.

iii) Detail of Area "C", dated March 23, 1982, signed and sealed by Carl R. Gaskill, P.E.

In case of conflict, the hazardous waste management provisions of Title 7, Chapter 26 of the New Jersey Administrative Code shall have precedence over the conditions of this permit, and the conditions of this permit shall have precedence over the permit application documents listed above.

(b) One complete set of the permit application documents listed in Condition 1(a) above, this Hazardous Waste Facility Permit, and all records, reports and plans as may be required pursuant to this permit shall be kept on-site and shall be available for inspection by authorized representatives of the Department upon presentation of credentials. The records, reports and plans required pursuant to this permit include the following:

(1) The Preparedness and Prevention Plan required by Condition 13 of Section I of this permit and N.J.A.C. 7:26-9.6.

(2) The Personnel Training Plan and records required by Condition 14 of Section I of this permit and N.J.A.C. 7:26-9.4(g).

(3) Copies of the financial documents and closure cost estimate required by Condition 15 of Section I of this permit and N.J.A.C. 7:26-9.10 and N.J.A.C. 7:26-9.13.

(4) The written Operating Record required by Condition 16 of Section I of this permit and N.J.A.C. 7:26-9.4(i).

ATTACHMENT 14

(5) The Contingency Plan required by Condition 20 of Section I of this permit and N.J.A.C. 7:26-9.7, and specifically the plan prepared by Andrew C. Rola, P.E. of Kaselaan & DeAngelo Associates, Inc. dated November 25, 1988.

(6) The Waste Analysis Plan outlined in Condition 4 of Section II of this permit and as required by N.J.A.C. 7:26-9.4(b), and specifically the plan prepared by Andrew C. Rola, P.E. of Kaselaan & DeAngelo, Inc. dated May 8, 1988 and procedures for conducting flash point and BS&W analyses included in the July 20, 1988 submittal.

(7) The Inspection Requirements required by Condition 5 of Section II of this permit and N.J.A.C. 7:26-9.4(f) and N.J.A.C. 7:26-10.5(e).

(8) The Closure Plan required by Condition 6 of Section II of this permit and N.J.A.C. 7:26-9.8 and N.J.A.C. 7:26-10.5(h), and dated November 25, 1988.

(9) Product specifications required by Condition 8 of Section II of this permit and specifically stated in Appendix C (Waste Analysis Plan) prepared by Andrew C. Rola, P.E. of Kaselaan & DeAngelo Associates, Inc. dated May 8, 1988.

(10) The Soil Sampling and Analysis Plan required by Condition 9 of Section II of this permit, and specifically the plan prepared by Andrew C. Rola, P.E. of Kaselaan & DeAngelo Associates, Inc. dated November 25, 1988.

2. Authorized Activities

a) The permittee is authorized to store and treat hazardous waste oil from off-site generators for the purpose of acting as a commercial facility in the 9 tanks detailed on the Site Plan drawing revised July 8, 1982, Holding Tanks drawing revised January 4, 1979 and Detail of Area "C" drawing dated March 23, 1982 cited in Condition 1(a) of Section II of this permit, and as follows:

Tank Number	Design Capacity (gallons)	Material of Construction	Description of Contents	Minimum Shell Thickness Required (inches)
T1	42,000	Carbon Steel	Finished Product Oil	3/16
T2	42,000	"	Finished Product Oil	"
T3	42,000	"	Waste Water	"
T4	42,000	"	Waste Oil	"
T5	42,000	"	Waste Oil	"
T6	10,000	"	Waste Oil	"
T7	10,000	"	Waste Oil	"
T8	10,000	"	Waste Oil	"
T9	10,000	"	Waste Water	"

ATTACHMENT 15

b) A secondary containment system for Tank T9 (Area "A"), constructed of a reinforced concrete base with cement block walls, Tanks T1 - T5 (Area "B"), constructed of cement block walls with a natural soil base, and Tanks T6 - T8 (Area "C"), constructed of a reinforced concrete base with cement block walls, shall be maintained for each tank and shall be free of cracks or gaps and of adequate capacity and be sufficiently impervious to contain leaks, spills and accumulated rainfall until the collected material is directed and removed. The base for Areas "A" and "C" shall have a minimum thickness of 6 inches and a permeability rating of no greater than 10^{-7} centimeters per second, in addition to adequate structural integrity to withstand the maximum stress applied to the base due to activities or structures placed in the containment area. The secondary containment system shall be maintained and operated to efficiently drain and remove liquids resulting from leaks, spills and precipitation.

c) Spilled or leaked waste shall be removed from the secondary containment system daily. Accumulated precipitation shall be removed from the secondary containment system in a timely manner to prevent blockage or overflow of the collection system.

d) The permittee is authorized to operate a 100-horsepower, No. 2 Fuel Oil fired boiler to generate steam at a pressure of 15 pounds per square inch (psi) to be used for noncontact heating of the waste oil for tanks T4 - T7.

e) The permittee is not authorized to accept drums containing hazardous waste at the facility. However, the permittee may accumulate drums containing on-site generated hazardous waste provided they are managed according to N.J.A.C. 7:26-9.3.

f) All incoming oil shipments shall be analyzed pursuant to Condition 4 of this Section to confirm acceptability before being off-loaded at the facility. All such shipments accepted and having a BS&W greater than 2% shall be off-loaded into either tanks T4, T5, T6 or T7, while acceptable shipments having a BS&W of 2% or less may be off-loaded into product tanks T1 or T2.

(1) BS&W less than 2%: All shipments accepted and having a BS&W content less than 2% may be off-loaded into either product tanks T1 or T2, or tanks T4, T5, T6 or T7. No shipments having a BS&W content greater than 2% shall be off-loaded in product tanks T1 or T2.

(2) BS&W greater than 2% but less than 10%: All shipments accepted and having a BS&W content greater than 2% but less than 10% shall only be off-loaded into either tanks T4, T5, T6 or T7.

(3) BS&W greater than 10% but less than 20%: All shipments accepted having a BS&W content greater than 10% but less than 20% shall only be off-loaded into either tank T6 or T7.

ATTACHMENT 16

(4) All waste oil from tanks T6 and T7 shall be processed by pumping the oil through a filter and into Tank T8, as described in the May 8, 1988 permit application.

(5) All wastewater removed from the waste oil storage and treatment tanks shall be pumped into tanks T3 or T9 for storage prior to shipment off-site.

g) Hazardous waste shall not be stored at any other locations other than those detailed in (a) above.

h) Signal whistles shall be maintained on all of the tanks as a means of overfill control. In addition, sight glasses for visual inspection of liquid levels shall be maintained on tanks T6, T7 and T8.

i) Any changes or alterations to this authorized activity section must obtain prior approval from the Bureau of Hazardous Waste Engineering.

3. Authorized Wastes

a) The permittee is authorized to accept the following waste oils:

NJ Hazardous Waste Number	Hazardous Waste
X721	Waste automotive crankcase and lubricating oils from automotive service and gasoline stations, truck terminals, and garages.
X722	Waste oil and bottom sludge generated from tank cleanouts from residential/ commercial fuel oil tanks.
X723	Waste oil and bottom sludge generated by gasoline stations when gasoline and oil tanks are tested, cleaned, or replaced.
X724	Waste petroleum oil generated when tank trucks or other vehicles or mobile vessels are cleaned, including, but not limited to, oily ballast water from product transport units of boats, barges, ships or other vessels.
X725	Oil spill cleanup residue which: (a) is contaminated beyond saturation; or (b) the generator fails to demonstrate that the spill material was not one of the listed hazardous waste oils.
X726	The following used and unused waste oil:

ATTACHMENT 17

metal working oils; turbine lubricating oils; diesel lubricating oils; and quenching oils.

X727 — Waste oil from the draining, cleaning or disposal of electric transformers.

X728 — Bottom sludge generated from the processing, blending, and treatment of waste oil in waste oil processing facilities.

b) The permittee may not accept oils containing PCB's (Polychlorinated Biphenyls), at a concentration greater than 50 parts per million or greater than any future concentration limit set by Federal agencies or the Department. The permittee shall obtain advance certification of compliance with this standard from a licensed independent testing laboratory for any incoming shipment of waste oil type X727.

c) The permittee may not accept Ignitable Wastes (I), i.e. waste with a flash point less than 140°F.

d) The permittee may not accept waste oils with a BS&W greater content than 20%.

4. Waste Analysis and Quality Assurance Control

a) The permittee shall adhere to the provisions of the waste analysis plan as detailed in the Part B permit application dated May 8, 1988 and supplemented July 20, 1988.

b) At a minimum, the analysis shall contain all of the information which must be known to treat, store or dispose of the hazardous wastes. The analysis must be accomplished in accordance with the Quality Assurance/Quality Control Methodology established by the Division of Hazardous Waste Management.

c) The permittee must obtain two representative liquid samples of each incoming shipment using a liquid composite (coliwasa) of adequate length to reach the bottom of the truck's tank. One sample shall be used to analyze the truckload for BS&W, Gravity, and Flash Point using approved methods. This testing shall be done prior to unloading the tank truck. The remaining portion of this truckload sample shall be retained for 3 months.

d) The second sample shall be used to obtain a composite sample of incoming oil shipments for PCB analysis. Each tank into which incoming oil is transferred shall be marked with a red tag which shall remain on the tank until PCB analysis of the composite sample representative of that tank has been completed and the PCB content has been found acceptable. Oil shall not be removed from any tank bearing such a red tag. The PCB analysis of the composite samples shall be performed by a certified laboratory. In the event that a composite sample yields a PCB analysis greater

ATTACHMENT 18

than (50/x) ppm, where x equals the number of shipments represented by the composite, the PCB content shall be deemed unacceptable. In such event, the permittee shall:

(1) Provide oral and written notifications to the Department;

(2) Keep all tanks which contain oil shipments represented in the composite sample under the red tag state until directed otherwise by the Department;

(3) Refrain from adding any new incoming oil shipments to these affected tanks; and

(4) Have the retained truckload sample for each oil shipment represented in the composite individually analyzed for PCB's to trace the source of the contamination.

e) The permittee shall analyze the outgoing oil shipments sold as product, as necessary, to ensure compliance with the product specifications for outgoing oil specified in Condition 8 of Section II of this permit. At a minimum, these analyses shall be performed on representative samples of product oils on a quarterly basis.

f) The permittee must maintain on-site a readily accessible description of all incoming waste loads and outgoing oil shipments. The description shall include:

(1) The date, exact place, and time of sampling or measurements;

(2) The individual(s) who performed the sampling or measurements;

(3) The date(s) analyses were performed;

(4) The individual(s) who performed the analyses;

(5) The type of waste oil, manifest number, and quantity;

(6) The results from the applicable tests listed above.

g) The permittee shall not accept any material unless the material to be accepted is, in fact, a material which the facility is authorized to handle.

h) The permittee, if offered hazardous waste of a type which the facility is not authorized to handle, shall:

(1) Not accept the waste from the hauler;

(2) Instruct the hauler to contact the generator for further instructions;

(3) Telephone the generator, and inform the generator that the permittee is not authorized to accept the waste and that the

ATTACHMENT 19

permittee has instructed the hauler to contact the generator for further instructions;

(4) Follow up the telephone call to the generator with a letter verifying the telephone conversation;

(5) Telephone the Department, at (609) 292-7081, and report the unauthorized waste shipment; and

(6) Follow up the telephone call to the Department with a letter verifying the telephone conversation.

i) Process waste water shall be handled as a hazardous waste (unless the permittee can document that it is non-hazardous) and sludge bottoms shall be manifested off-site to an authorized hazardous waste facility.

j) Sampling methods, using equipment as precribed in latest edition of EPA Manual SW-846, shall be followed in accordance with procedures as outlined in the waste analysis plan cited in Section II, Condition 1(b)6.

k) As per N.J.A.C. 7:26-9.4(i)3 the permittee shall keep a written operating record at the facility which contains the records and results of analysis performed as specified. Such records shall be recorded as they become available and maintained until closure of the facility.

l) The waste analysis plan cited in Condition 1(b)6 of Section II of this permit remains under review by the Division of Hazardous Waste management for compliance with the standards provided by the USEPA, Region II. If, after further review by the Division, it is found that the waste analysis plan is deficient or incomplete, then the permittee will be required to amend or revise the plan and to submit such revisions or amendments to the Division for reevaluation and approval. The permittee shall submit a revised Waste Analysis Plan within sixty (60) days of the effective date of this permit which will address the following deficiencies:

1) State any analyses conducted on sludge generated from the process destined for off-site disposal. Waste generated from the treatment process should be characterized at least annually. Rationale for parameters chosen to characterize the waste stream should be explained. Test methods used to analyze for each parameter should also be given. Parameters to be selected should be based upon the destined disposal/treatment method. If the waste is to be landfilled, the waste should be analyzed for any land disposal banned constituents.

2) The plan should detail the waste sampling procedures for incoming wastes, product shipments, and waste generation streams which should conform to the sampling methods described in Volume II, Part III, Chapters Nine and Ten of

the 3rd edition of SW-846 protocol, or to the NJDEP's latest edition of the "Field Sampling Procedures Manual." The facility must provide rationale and justification for the use of facility specific procedures which are not approved by the Department.

3) A sample of the chain-of-custody form for the samples should appear in the plan. The documentation of the chain-of-custody should, at least, conform to the procedure outlined in the appropriate section of the latest revision of SW-846 protocol. The chain-of-custody should include all the steps in handling from the field sampling through the lab aspects of the handling, including any movements to and from storage.

4) The plan should provide a complete list of laboratory equipment for the internal laboratory. In addition, the plan should describe the procedures and frequency of lab equipment inspection, maintenance, and servicing. Company servicing contracts should be noted in the plan.

5. Inspection Requirements

a) C.R. Warner shall perform daily site inspections of the oil processing system. The tank farm and all tanks, pipes, valves, pumps and other structural components, etc., are checked for indications of structural failure, corrosion, leakage, and/or mechanical failure.

C.R. Warner shall also perform weekly inspections of the perimeter fence, loading pad, retaining walls, fire extinguishers, the steam jenny, the emergency alarm and to indicate the presence of odor. Monthly inspections are to be performed of the emergency alarm, first aid kits, telephones, shower, fire extinguishers, oil absorbents, shovels and brooms.

b) A written daily log of conditions found and steps taken to correct the conditions is to be kept on-site. This log must be maintained on file and must be available to Department representatives upon request.

c) All storage tanks shall have sufficient shell strength and pressure controls to assure that they do not collapse or rupture. A minimum shell thickness of 3/16 inches shall be maintained during the life of the tank.

The permittee shall conduct shell thickness testing on each of the permitted tanks prior to April 27, 1993. At least 90 days prior to the expected date of testing, C.R. Warner shall submit to the Department a test plan detailing methods of testing and locations on the tanks to be tested. Within 60 days of the Department's approval of the plan, the permittee shall conduct testing in accordance with the plan. Test results shall be submitted to the Department within fifteen days of testing and accompanied by a

certification statement specified in N.J.A.C. 7:26-12.2(l). If the Department determines that any of the tanks has failed integrity testing, the permittee must submit a plan to the Department detailing methods for tank(s) which failed the integrity test to be taken out of service or to be properly repaired to maintain the minimum shell thickness to prevent leaks, ruptures, and corrosion within 30 days of notification from the Department that the tank(s) has failed integrity testing.

d) The permittee shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

6. Closure Plan

a) At the time of final closure, the permittee shall close the facility in the manner that is stated in the plan referenced in Condition 1(b)8 of Section II of this permit, which includes:

1) Waste oil inventory shall be processed to produce fuel blending oil.

2) Product oil shall be sold off-site as fuel blending oil.

3) Tanks T1-T9 shall be decontaminated in the following manner:

i) Flush all piping leading to the tanks. The liquids shall be collected in the tanks or pipe clean-outs if applicable.

ii) The lines shall be steam-cleaned in order to remove any oily residues.

iii) The tanks shall be allowed to vent themselves of any built-up gases.

iv) Add a degreasing agent to the existing water within the tanks. The tanks shall then be hydrowashed or flushed using high pressure water jets.

v) Upon completion, a vacuum suction truck shall remove the contaminated water from the tank.

vi) The liquids that were accumulated during the tank cleaning shall be properly shipped to authorized off-site facilities according to their classification.

vii) Once clean, the tanks shall be entered by an OSHA certified competent person. This person shall analyze the ambient air quality within the confined spaced prior to issuing a safe-entry permit and certifying the tank as non-hazardous. If any scraping of caked-on material

or residue is required, it shall be conducted and the material removed shall be managed as hazardous waste.

4) Decontamination of secondary containment systems shall be conducted as follows:

i) Containment areas "A", "B" and "C" shall be inspected for signs of contamination by visual inspection for oil and a review of annual soil sampling records. In addition, eighteen soil samples shall be collected at six random locations in area "B", at depths of 6 inches, 18 inches and 36 inches, and analyzed for Total Petroleum Hydrocarbons. The facility shall submit results of analyses within 60 days after conducting the sampling. If, after receipt and review of the results, the Department determines that soil contamination does exist, then the facility shall submit a cleanup program to the Department within 60 days of notification by the Department. The cleanup program shall be implemented within 30 days of acceptance by the Department.

ii) Concrete: All visible stains of oil on concrete surfaces shall be steam cleaned with high-pressure steam. All rinsate shall be collected and manifested off-site to an authorized facility.

iii) Soil: Contaminated soil shall be removed and disposed of according to its hazardous waste classification. Post excavation soil samples shall be taken at locations where contaminated soil was removed. The post excavation samples shall be analyzed for Total Petroleum Hydrocarbons.

5) The permittee shall complete closure activities in accordance with the approved closure plan within 180 days after receiving the final volume of waste.

6) When closure is completed, the permittee shall submit to the Department certification both by the owner or operator and by an independent New Jersey registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan within 30 days after closure activities are completed.

b) The permittee shall keep a copy of the closure plan and all revisions to the plan at the facility until closure is completed.

c) The permittee shall amend the closure plan any time changes in operating plans or facility design affect the closure plan or whenever there is a change in the expected year of closure of the facility. The plan must be amended within sixty (60) days of the changes.

ATTACHMENT 23

ATTACHMENT D

DUFFIELD ASSOCIATES, INC.
5350 LIMESTONE ROAD WILMINGTON, DELAWARE 19808-1296 302-239-6634
CONSULTING GEOTECHNICAL ENGINEERS

November 3, 1988

Mr. Barry Warner
C. R. Warner, Inc.
P.O. Box 134
Woodstown, NJ 08098

W.O. 1267-GA
RE: Containment Area B
Soil Liner Evaluation

Dear Mr. Warner:

This report summarizes our exploration and evaluation of the shallow depth soil profile, beneath Containment Area B at the C. R. Warner, Inc. waste oil recycling facility, located near Woodstown, New Jersey. It is our understanding that Containment Area B consists of five (5), approximately 19.5 ft. diameter metal oil storage tanks, located within an approximately 142 ft. x 42 ft. area, enclosed by an approximately 4 ft. high block perimeter wall (see Fig. 1). The purpose of this exploration, which has been performed in general accordance with our proposal of 3 August 1988, is an evaluation of the quality of the soil profile, within the walled area, to function, in conjunction with the block perimeter wall, as an "impermeable" secondary containment liner system.

Field Exploration

Field exploration consisted of five (5) backhoe excavated test pits, nine (9) hand auger, soil sample borings, and four (4) Shelby tube (ASTM: D 1587) samples. The purpose was to obtain samples of subsurface soils as an indication of texture and continuity (areal and vertical) of shallow depth soil strata, throughout Containment Area B. Approximate locations of these various field sampling sites are indicated on Figure 1, Location Sketch. Attached are Descriptive Logs, which summarize subsurface conditions encountered by the test pit excavations, auger borings, and Shelby tube samples.

The area within the block perimeter wall was inaccessible to the tractor mounted backhoe, utilized for test pit excavation and Shelby tube sampling. As a result, field exploration within the walled containment area was limited to hand auger borings. For comparison of area stratigraphy and to check the perimeter wall foundation depth, five (5) backhoe excavated test pits were

ATTACHMENT 6

performed outside the perimeter wall. For laboratory permeability evaluation, Shelby tube samples, which utilized the backhoe bucket for hydraulic down pressure, were also obtained outside the perimeter wall. Based on visual, in-the-field review of the soil samples (and as confirmed by subsequent soil laboratory evaluation -- see below), it appears that the soils encountered outside the perimeter wall, are texturally equivalent with the soils, encountered within the walled containment area.

Soils Laboratory

Soils laboratory textural evaluation of selected soil samples was performed to aid in soil classification and as an indication of engineering properties. These soil index data, which include soil moisture (ASTM: D 2216), silt-clay content (% finer than No. 200 sieve -- ASTM: D 1140), and soil plasticity (Atterberg Limits -- ASTM: D 2487), are summarized on Table 1, Soils Laboratory Data, Test Pits & Hand Auger Borings.

The 2.87 inch, nominal diameter Shelby tube samples (ASTM: D 1587) were also evaluated for soil index properties, as summarized on Table 2, Soils Laboratory Data, Shelby Tube Samples. Based on textural comparison with the hand auger samples, two (2) of the low plasticity clay samples (SH-1 and 4) were selected for laboratory determination of vertical hydraulic conductivity (i.e., permeability, perpendicular to the strata). Hydraulic conductivity testing was performed, using the one-dimensional consolidation apparatus (ASTM: D 2435) and "falling head" procedure, developed by the Army Corps of Engineers (EM 1110-2-1906). The indicated vertical permeability is 2×10^{-7} centimeters per second (cm/sec) for Shelby tube sample SH-1 and 5×10^{-8} cm/sec for SH-4.

Stratigraphy:

The subsurface exploration data, which are presented on the attached Descriptive Logs and summarized on Table 3, indicate that the soil profile, to a depth of 3 to 5 ft. below existing ground surface grade within the area of exploration, can generally be characterized as consisting of three (3) generalized strata, as follows:

Stratum	Stratum Thickness Range	Average
Fill		
Crushed stone	0.2 to 1.0 ft.	0.4 ft.
Silty sand	0.7 to 1.8 ft.	1.1 ft.
Low plasticity clay	absent to >2.2 ft.	---
Variably graded sand	---	---

ATTACHMENT 2

An observed exception to this generalized soil profile was encountered in the northwesterly end of the walled containment area, where the low plasticity clay appears to be absent. Auger borings HA-4, 6, and 7 encountered a generally granular soil, characterized as a gravelly, fine to medium sand with little to some clayey silt, beneath the surficial fill stratum. Similar soil profiles were also encountered at Shelby tube sample locations, SH-2 and 3, which are located outside the northwesterly perimeter wall (see Fig. 1).

Evaluation

The field exploration data for Containment Area B, as presented on the attached Descriptive Logs and as summarized on Table 3, Subsurface Exploration Summary, indicates the following:

- A 1 to 2 ft. thick, surficial fill stratum, consisting of crushed stone overlying silty sand borrow, extends across the entire area of exploration and contains perched groundwater;
- A thin (0.6 to >2.2 ft.) stratum of low plasticity clay underlies the surficial fill stratum and extends through much (but not all) of the area within the block containment wall; and
- The block perimeter wall appears, over much of its length, to be founded on (TP-5) or in (TP-3 and 4) the underlying low plasticity clay.

Laboratory evaluation indicates that the vertical permeability of the low plasticity clay soils is low, on the order of 10^{-7} cm/sec. The observed presence of perched groundwater, within the overlying fill stratum at the time of exploration (28 and 30 September 1988) is a further indication of the low permeability of these clay soils.

However, the field exploration data also indicate that the low permeability, low plasticity clay stratum:

1. Is discontinuous and locally absent, under at least the northwesterly end of the walled containment area, as indicated by HA-4, 6, and 7; and
2. Is, where present, highly variable in thickness and locally becomes very thin -- e.g. on 0.6 ft. (approximately 7 in.) at HA-3, which is located along the northeasterly side of the walled containment area (see Fig. 1).

ATTACHMENT 3

In summary, these data indicate that, in our opinion, there is potential for localized subsurface leakage, in areas where the low plasticity clay stratum is either absent or thin.

Conclusion & Recommendation

Based on the above evaluation, it is our opinion that the shallow depth, low plasticity clay stratum, while providing local confinement, does not have the demonstrated areal continuity to function, in conjunction with the block perimeter wall, as an integral "impermeable" liner system, throughout the entirety of Containment Area B.

To provide an integral liner system, it appears that it will be necessary to either design and install a replacement liner system or, possibly, patch the "holes" in the existing low plasticity clay horizon. If C. R. Warner wishes to pursue the liner patch option, Duffield Associates recommends a detailed subsurface exploration to better delimit the areas to be patched. This detailed exploration will require additional soil sample borings, performed on a closely spaced grid pattern, and will probably require "dewatering" of the surficial fill stratum to facilitate the field exploration effort. Depending on your election, Duffield Associates can assist C. R. Warner with either a detailed exploration effort or with design engineering for relining of the walled containment area.

If you have any questions regarding the above or if Duffield Associates can be of further assistance, please contact us.

Very truly yours,

DUFFIELD ASSOCIATES, INC.

G. K. Elliott

Glenn K. Elliott
Partner

GKE/skd

cc: Mr. Andy Rola, P.E. (Kaselaan & D'Angelo Assoc.)

Enclosures: Location Sketch
Tables (3)
Descriptive Logs (19)

ATTACHMENT 4

C. R. WARNER FACILITY
CONTAINMENT AREA B
LINER EVALUATION

TABLE 1

SOILS LABORATORY DATA
TEST PITS & HAND AUGER BORINGS

Test Pit/ Boring No. [1]	Sample Depth Interval (feet) [2]	Moisture Content (%) [3]	Silt-Clay Content [% < 200 Sieve] (%) [4]	Other [5] [6]
TP-1	1.0 - 3.2	28.1	56.2	
TP-3	1.2 - 3.4	21.4	83.4	
TP-4	1.2 - 2.5	20.7	69.6	
	2.5 - 3.4	22.8	37.8	
TP-5	1.8 - 2.8	18.6	54.3	
HA-1	1.0 - 3.2	24.1	83.8	LL = 33 % PI = 13.5% USCS: CL
HA-2	1.2 - 2.3	22.0	27.3	LL = 30% PI = 11% USCS: SC
HA-3	1.4 - 2.0	22.7	58.3	
	2.0 - 2.4	10.3	13.0	

ATTACHMENT 5

C. R. WARNER FACILITY
CONTAINMENT AREA B
LINER EVALUATION

TABLE 1

SOILS LABORATORY DATA
TEST PITS & HAND AUGER BORINGS

Test Pit/ Boring No. [1]	Sample Depth Interval (feet) [2]	Moisture Content (%) [3]	Silt-Clay Content [% < 200 Sieve] (%) [4]	Other [5] [6]
HA-4	1.5 - 3.0	12.5	24.0	
HA-6	3.5 - 4.5	13.9	27.6	
HA-7	1.7 - 3.0	10.9	12.2	
HA-8	1.9 - 2.5	28.1	81.6	
	2.5 - 3.2	23.5	91.8	

* * * * * * * * * * * * * * * * * *

Notes:
1. TP = backhoe excavated test pit
   HA = hand auger boring
2. Depth below ground surface grade at time of excavation/augering.
3. ASTM: D 2216
4. ASTM: D 1140
5. Atterberg Limits -- ASTM: D 4318
   LL = liquid limit
   PI = plasticity index
6. USCS = Unified Soil Classification System -- ASTM: D 2487
   CL = low plasticity clay
   SC = clayey sand

ATTACHMENT 6

C. R. WARNER FACILITY
CONTAINMENT AREA B
LINER EVALUATION

TABLE 2

SOILS LABORATORY DATA
SHELBY TUBE SAMPLES

Shelby Tube No.	Sample Depth Interval (feet) [1]	Moisture Content (%) [2]	Silt-Clay Content [% < 200 Sieve] (%) [3]	Atterberg Limits [4] and Classification [5]	Dry Density (PCF) [6]	Vertical Hydraulic Conductivity (at 20°) (cm/sec) [7]
SH-1	2.3 - 2.4		93.4		98.3	k = 2 x 10^{-7}
	2.5 - 3.0	22.7	93.3			
	3.1 - 3.2	25.1	78.7	LL = 28%		
	3.3 - 3.5	19.6		PI = 7%		
				USCS: CL		
SH-2	1.8 - 2.2	11.5	37.4			
	2.4 - 2.7	6.6	10.7			
SH-3	2.3 - 2.8	15.7			116.4	
	2.8 - 3.0	17.6	42.4	LL = 30%		
				PI = 13.5%		
				USCS: SC		
SH-4	2.8 - 2.9					k = 5 x 10^{-8}
	3.0 - 3.5	20.5	95.7	LL = 31%	106.1	
				PI = 11%		
				USCS: CL		
	3.5 - 3.8	18.0	93.1			

NOTES:
1. Depth below ground surface grade at time of sampling.
2. ASTM: D 2216
3. ASTM: D 1140
4. ASTM: D 4318
   LL = liquid limit
   PI = plasticity index
5. USCS = Unified Soil Classification System -- ASTM: D 2487
   CL = low plasticity clay
   SC = clayey sand
6. PCF = pounds per cubic foot
7. Hydraulic conductivity (i.e. permeability) test performed, using the one-dimensional consolidation apparatus (ASTM: D 2435) and "falling head" procedure, developed by the Army Corps of Engineers (EM 1110-2-1906).
   cm/sec = centimeters per second

W.O. 1267-GA
Duffield Associates, Inc.

ATTACHMENT 7

C. R. WARNER FACILITY
CONTAINMENT AREA B
LINER EVALUATION

TABLE 3

SUBSURFACE EXPLORATION SUMMARY

Location [1]	Bottom Depth (feet) [2]	Stratum Depth Interval (feet) [2]		Notes
		Fill	Low Plasticity Clay Soil	
TP-1	5.0	0 - 1.0	1.0 - 3.2	
TP-2	5.0	0 - 1.0	1.0 - 2.5	
TP-3	3.4	0 - 1.2	1.2 - bottom	Wall footing at 2.1 ft. depth
TP-4	3.0	0 - 1.2	1.2 - 2.5	Wall footing at 2.0 ft. depth fuel oil-like odor
TP-5	2.8	0 - 1.8	1.8 - bottom	Wall footing at 1.8 ft. depth
HA-1	3.2	0 - 1.0	1.0 - bottom	
HA-2	2.3	0 - 1.2	1.2 - bottom	Fuel oil-like odor
HA-3	2.4	0 - 1.4	1.4 - 2.0	
HA-4	3.0	0 - 1.5	not encountered	
HA-5	1.5	0 - bot.	---	Borehole caving
HA-6	4.5	0 - 2.0	not encountered	
HA-7	3.0	0 - 1.7	not encountered	
HA-8	3.2	0 - 1.9	1.9 - bottom	
HA-9	2±	0 - bot.	---	Borehole caving
SH-1	3.7	0 - 1.7	1.7 - bottom	
SH-2	3.2	0 - 1.5	not encountered	
SH-3	3.4	0 - 1.4	not encountered	
SH-4	3.8	0 - 1.9	1.9 - bottom	

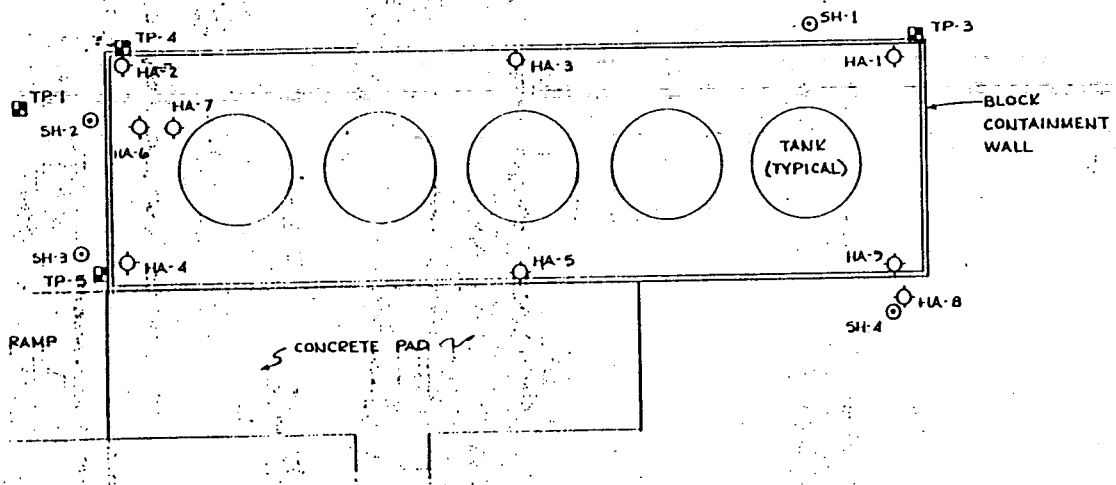
NOTES:

1. See Figure 1, Location Sketch, Field Exploration.
   TP = backhoe excavated test pit
   HA = hand auger boring
   SH = Shelby Tube sample

2. Depth below ground surface grade at time of excavation/augering.

W.O. 1267-GA
Duffield Associates, Inc.

ATTACHMENT 8



TP-2

KEY:

- TP-1 BACKHOE EXCAVATED TEST PIT
- SH-1 SHELBY TUBE SAMPLE
- HA-1 HAND AUGER BORING

NOTE:

THIS SKETCH WAS ADAPTED FROM A PLAN TITLED "SITE PLAN, C.R. WARNER, INC.; PILESGROVE TWP., SALEM CO., N.J.", PREPARED BY ALBERT A FRALINGER JR. P.A. AND DATED JULY 8, 1981 (REVISED MARCH

FIGURE 1
LOCATION SKETCH
FIELD EXPLORATION
CONTAINMENT AREA B
LINER EVALUATION
C. R. WARNER FACILITY
WOODSTOWN, NEW JERSEY

DUFFIELD ASSOCIATES, INC.
CONSULTING GEOTECHNICAL ENGINEERS
WILMINGTON, DELAWARE

DESIGNED BY		DATE	31, OCT. 1988
DRAWN BY	DHP	SCALE	1" = 20' ±
CHECKED BY	GKE	W.O. NO.	1267-GA
APPROVED BY	D:\1267GA\1	SHEET NO.	OF

ATTACHMENT 9

TEST PIT
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility
Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/28/88

REVIEWED BY: MSJ

Test Pit No.	Depth Range (ft.)	Generalized Soil Description
TP-1	0.0 - 0.2	Crushed stone
	0.2 - 1.0	Fill -- orange brown, fine to medium sand, little silt, trace gravel (damp)
	1.0 - 3.2	Dark gray, medium-stiff, low plasticity clay and sand (fine-medium), trace gravel (damp)
	3.2 - ---	Gray, loose-medium dense, fine-medium sand, little gravel, little silt, trace cobbles (damp)

Notes:
1. Excavation terminated at 5 foot depth below existing ground surface grade.
2. Groundwater seepage observed at 1 foot depth level (i.e. from fill horizon) at completion. Slight continued seepage observed 6 hours after completion; no standing water in excavation.

ATTACHMENT 10

TEST PIT
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/28/88

REVIEWED BY: MSJ

Test Pit No.	Depth Range (ft.)	Generalized Soil Description
TP-2	0.0 - 0.2	Crushed stone
	0.2 - 1.0	Fill -- orange brown, fine to medium sand, little silt, trace gravel (damp)
	1.0 - 2.5	Gray with orange brown mottles, low plasticity clay, little sand (dry)
	2.5 - ----	Light brown, loose-medium dense, fine to medium sand, little gravel, little clayey silt; interlayered lenses gray silty clay (dry)

Notes:
1. Excavation terminated at 5 foot depth below existing ground surface grade.
2. No groundwater seepage observed 6 hours after completion of excavation.

ATTACHMENT 11

TEST PIT
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/28/88

REVIEWED BY: MSJ

Test Pit No.	Depth Range (ft.)	Generalized Soil Description
TP-3	0.0 – 0.2	Crushed stone
	0.2 – 1.2	Fill -- orange brown, fine to medium sand, little silt, trace gravel (damp)
	1.2 – ———	Gray with orange brown mottles, low plasticity clay, little sand (dry)

Notes:
1. Excavation terminated at 3.4 foot depth below existing ground surface grade.
2. No groundwater seepage observed 5.5 hours after completion of excavation.
3. Excavation performed adjacent to northeasterly, outside corner of block containment wall -- bottom of wall footing at 2.1 foot depth below existing ground surface grade.

ATTACHMENT 12

TEST PIT
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/28/88

REVIEWED BY: MSJ

Test Pit No.	Depth Range (ft.)	Generalized Soil Description
TP-4	0.0 - 0.2	Crushed stone
	0.2 - 1.2	Fill -- orange brown, fine to medium sand, little silt, trace gravel (wet)
	1.2 - 2.5	Dark gray, medium-stiff, low plasticity clay and sand, trace gravel (damp)
		Note: Mild organic/fuel oil-like odor.
	2.5 - ---	Dark gray, fine to medium sand and silt, trace coarse sand, trace gravel (damp)
		Note: Mild organic/fuel oil-like odor.

Notes:

1. Excavation terminated at 3 foot depth below existing ground surface grade.
2. Groundwater seepage from fill stratum at completion.
3. Excavation performed adjacent to northwesterly, outside corner of block containment wall -- bottom of wall footing at 2.0 foot depth below existing ground surface grade. (Strong fuel oil-like odor below footing.)

ATTACHMENT 13

TEST PIT
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/28/88

REVIEWED BY: MSJ

Test Pit No.	Depth Range (ft.)	Generalized Soil Description
TP-5	0.0 — 0.6	Crushed stone
	0.6 - 1.8	Fill -- orange brown, fine to medium sand, little silt, trace gravel (wet)
	1.8 - ---	Brown and gray, low plasticity clay and sand (fine to medium), trace gravel (damp)

Notes:
1. Excavation terminated at 2.8 foot depth below existing ground surface grade.
2. Groundwater flowing from stone and fill strata at completion.
3. Excavation performed adjacent to southwesterly, outside corner of block containment wall -- bottom of wall footing at 1.8 foot depth below existing ground surface grade.

ATTACHMENT 14

AUGER BORING
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/28/88

REVIEWED BY: MSJ

Auger Boring No.	Depth Range (ft.)	Generalized Soil Description
HA-1	0.0 - 0.3	Crushed stone.
	0.3 - 1.0	Fill -- orange brown, fine to medium sand, little silt, trace gravel (wet)
	1.0 - ---	Gray, low plasticity clay, some sand, trace gravel (damp)

Notes:
1. Auger boring terminated at 3.2 foot depth below existing surface grade.
2. Water level in open bore hole at 0.1 foot depth below existing surface grade at completion.

HA-2	0.0 - 0.4	Crushed stone
	0.4 - 1.2	Fill -- orange brown, fine to medium sand, little silt, trace gravel (wet)
	1.2 - ---	Dark gray, low plasticity clayey sand (fine to medium), trace gravel; with brown sand lenses (damp)
		Note: Strong fuel oil odor.

Notes:
1. Auger boring terminated at auger refusal -- 2.1 foot depth below existing surface grade.
2. Water level in open bore hole at 0.1 foot depth below existing surface grade at completion.

ATTACHMENT 15

AUGER BORING
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/28/88

REVIEWED BY: MSJ

Auger Boring No.	Depth Range (ft.)	Generalized Soil Description
HA-3	0.0 - 0.4	Crushed stone
	0.4 - 1.4	Fill -- orange brown, fine to medium sand, little silt, trace gravel (wet)
	1.4 - 2.0	Dark gray, medium to stiff, low plasticity clay and sand (fine to medium), trace gravel; with organic silt lenses (damp)
	2.0 - ---	Dark gray, medium sand, some fine sand, little coarse sand, some gravel, little silt (wet)

Notes:
1. Auger boring terminated at 2.4 foot depth below existing surface grade.
2. Water level in open bore hole at 0.1 foot below existing ground surface grade at completion.

ATTACHMENT 16

AUGER BORING
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility
Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/28/88

REVIEWED BY: MSJ

Auger Boring No.	Depth Range (ft.)	Generalized Soil Description
HA-4	0.0 – 0.8	Crushed stone
	0.8 - 1.5	Fill -- orange brown, fine to medium sand, little silt, trace gravel (wet)
	1.5 - ---	Brown gray, fine to medium sand and gravel, little coarse sand, some clayey silt (wet)

Notes:
1. Auger boring terminated at 3.0 foot depth below existing surface grade.
2. Water level in open bore hole at 0.1 foot depth below existing surface grade at completion.

HA-5	0.0 – 1.0	Crushed stone
	1.0 – ---	Fill -- orange brown, fine to medium sand, little silt, trace gravel (wet)

Notes:
1. Auger boring terminated at 1.5 foot depth due to caving, sloughing, and groundwater flow.
2. Water level in open bore hole at 0.1 foot depth below existing surface grade at completion.

ATTACHMENT 17

AUGER BORING
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/28/88

REVIEWED BY: MSJ

Auger Boring No.	Depth Range (ft.)	Generalized Soil Description
HA-4	0.0 – 0.8	Crushed stone
	0.8 – 1.5	Fill -- orange brown, fine to medium sand, little silt, trace gravel (wet)
	1.5 – ---	Brown gray, fine to medium sand and gravel, little coarse sand, some clayey silt (wet)

Notes:
1. Auger boring terminated at 3.0 foot depth below existing surface grade.
2. Water level in open bore hole at 0.1 foot depth below existing surface grade at completion.

HA-5	0.0 – 1.0	Crushed stone
	1.0 – ---	Fill -- orange brown, fine to medium sand, little silt, trace gravel (wet)

Notes:
1. Auger boring terminated at 1.5 foot depth due to caving, sloughing, and groundwater flow.
2. Water level in open bore hole at 0.1 foot depth below existing surface grade at completion.

ATTACHMENT 18

AUGER BORING
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/30/88

REVIEWED BY: MSJ

Auger Boring No.	Depth Range (ft.)	Generalized Soil Description
HA-6	0.0 - 0.2	Crushed stone
	0.2 - 2.0	Fill -- orange brown, fine to medium sand, little silt, trace gravel
	2.0 - ---	Dark gray, loose to medium dense, fine to medium sand, some clayey silt, trace coarse sand, little gravel (wet)

Notes:
1. Auger boring terminated at 4.5 foot depth below existing surface grade.

HA-7	0.0 - 0.2	Crushed stone
	0.2 - 1.7	Fill -- orange brown, fine to medium sand, little silt, trace gravel
	1.7 - ---	Dark gray, loose to medium dense, fine to medium sand, little coarse sand, some gravel, little clayey silt

Notes:
1. Auger boring terminated at 3.0 foot depth below existing surface grade.

ATTACHMENT 19

AUGER BORING
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/30/88

REVIEWED BY: MSJ

Auger Boring No.	Depth Range (ft.)	Generalized Soil Description
HA-8	0.0 - 0.3	Crushed stone
	0.3 - 1.9	Fill -- orange brown, fine to medium sand, little silt, trace gravel
	1.9 - 2.5	Gray, low plasticity clay, little sand; with brown organic silt lenses (moist)
	2.5 - ———	Light gray, stiff, low plasticity clay, trace sand (damp)

Notes:
1. Auger boring terminated at 3.2 foot depth below existing surface grade.
2. Slight water seepage from fill stratum.

HA-9	0.0 - 1.0	Crushed stone
	1.0 - ———	Fill -- orange brown, fine to medium sand, little silt, trace gravel

Notes:
1. Auger boring terminated at approximately 2 foot depth due to caving, sloughing, and groundwater flow.

ATTACHMENT 20

SHELBY TUBE SAMPLE
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility
Liner Facility

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/30/88

REVIEWED BY: MSJ

Shelby Tube No.	Depth Range (ft.)	Generalized Soil Description
SH-1	0.0 – 0.2	Crushed stone
	0.2 – 1.7	Sand fill
	1.7 – 3.7	Pushed Shelby tube (24" recovery)
		Mottled (gray and brown), low plasticity clay, trace to some (variable) sand; zones with organics
SH-2	0.0 – 0.2	Crushed stone
	0.2 – 1.5	Sand fill
	1.5 – 3.2	Pushed Shelby tube (20" recovery)
		1.5 – 2.4 Gray, fine to medium sand and low plasticity clay, little coarse sand, trace gravel
		2.4 – 3.2 Varicolored (brown, orange, and gray) medium to coarse sand, some fine sand, some gravel, trace silt

ATTACHMENT 21

SHELBY TUBE SAMPLE
DESCRIPTIVE LOG

PROJECT: C. R. Warner Facility
Liner Evaluation

W.O. NO.: 1267-GA

CLIENT: C. R. Warner, Inc.

DATE: 09/30/88

REVIEWED BY: MSJ

Shelby Tube No.	Depth Range (ft.)	Generalized Soil Description
SH-3	0.0 - 0.2	Crushed stone
	0.2 - 1.4	Sand fill
	1.4 - 3.4	Pushed Shelby tube (24" recovery)
	1.4 - 3.2	Brown and gray fine to medium sand and low plasticity clay, trace coarse sand, trace gravel
	3.2 - 3.4	Brown and gray fine to medium sand, little silt, trace gravel; with clayey balls/lenses
SH-4	0.0 - 0.4	Crushed stone
	0.4 - 1.9	Sand fill
	1.9 - 3.8	Pushed Shelby tube (22" recovery)
		Gray, low plasticity clay, trace sand

ATTACHMENT 20

ATTACHMENT E

HEADQUARTE
515 Grove St
Haddon Heights, NJ 08
(609) 547-6

JUN 1 1 1990

KASELAAN & D'ANGELO Associates, Inc.

a HILL GROUP company

LETTER OF TRANSMITTAL

DATE	JOB NO.
6/7/90	E1-1654-2

ATTENTION: Scott Fron / Anthony Fontana

RE: C.R. Warner Inc.
Permit No. 1709B1HP02

TO: MR. Scott Fron
NJDEP, Division of Haz. Waste
CN 028
Trenton NJ 08625-0028

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☒ Test Results ☐ Report ☐ Proposal ☐ _____

Copies	Date	No.	Description
1			Results of Laboratory DATA From Sampling C.R. Warner Inc. Containment AREA "B"

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval ☐ For review and comment

☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution ☐ PRINTS RETURNED AFTER LOAN TO

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ _____ ☐ FOR BIDS DUE _____ 19 _____

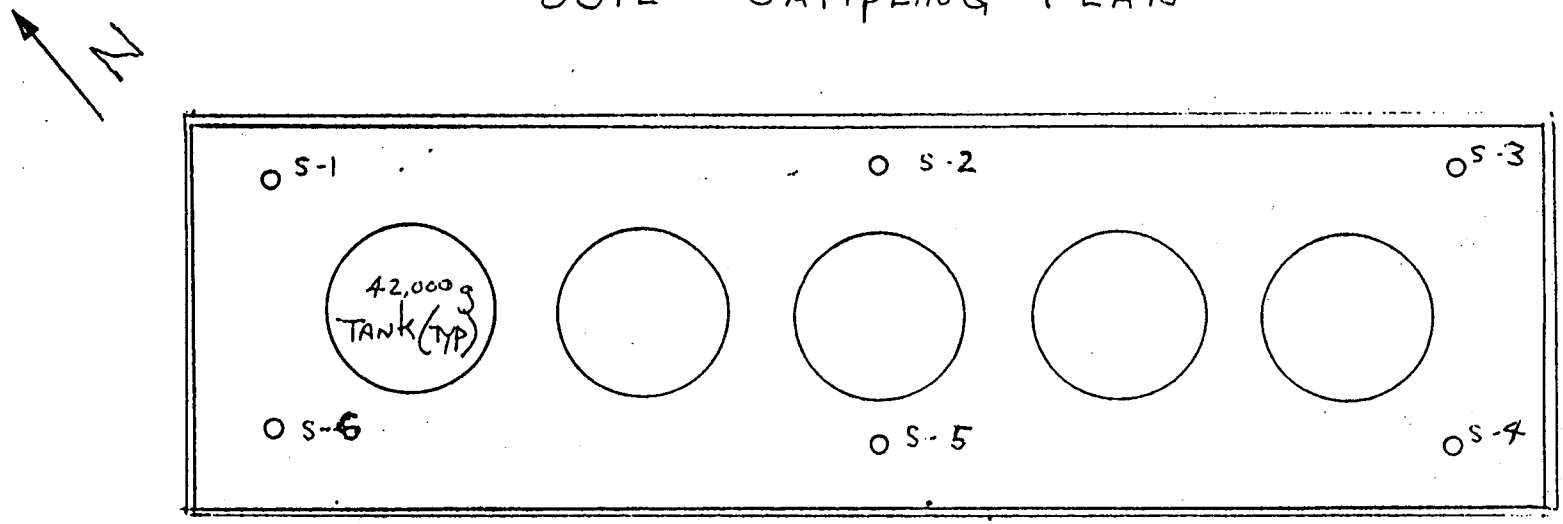
COMMENTS: There appears to be some high levels of T.P.H.C in vacinity of S-4, S-5 AND S-6. We can pump out water and excavate soils when we form up concrete base. What do you think?

COPY TO _____ SIGNED: _____ ATTACHMENT 1

ATTACHMENT 2

C.R. WARNER - CONTAINMENT AREA "B"

SOIL SAMPLING PLAN



Sample #	Depth	Analyte	Preservation
S-1A	6"	TPHC	Cool 4°C
S-1B	18"	TPHC	"
S-2A	6"	TPHC	"
S-2B	18"	TPHC	"
S-3A	6"	TPHC	"
S-3B	18"	TPHC	"
S-4A	6"	TPHC	"
S-4B	water	TPHC	"
S-5A	6"	TPHC	"
S-5B	water	TPHC	"
S-6A	6"	TPHC	"
S-6B	water	TPHC	"
* C-A	Composite 6" - PCBs, Metals		"
* C-B	Composite Water-PCBs Metals		"

Legend

O^{S-} Soil Samples at 6", 18"
Analysis for Total Petroleum Hydrocarbons (T.P.H.C) by EPA Method 418.1
Composite all 6" samples and analyse for P.P. Metals and PCBs. Composite all water samples and analyse for P.P. Metals and PCBs

Andrew C. Kaselaan P.E.
Kaselaan + D'Angelo
Site Plan
C.R. Warner Inc.
Woodstown N.J.

A.A. LABS, INC.
Analytical Associates Laboratory
NJDEP CERTIFICATION # 12660

1375 OFFICE CENTER
PRINCETON MEADOWS
P.O. BOX 749
PLAINSBORO, N.J. 08536
609-799-8787

REPORT TO: Kaselaan & D'Angelo Assoc., Inc.
515 Grove St.
Haddon Heights, NJ
08035
ATTN: Andy Rola

DATE SAMPLED: -
SAMPLED BY: customer
DATE SUBMITTED: 5/4/90
DATE EXTRACTED: 5/4/90
DATE ANALYZED: 5/7/90

REPORT DATE: 5/22/90

A.A. LAB LOG NO: 004346-004357

PARAMETER MEASURED: TPHC's

UNITS: **ppm**

SAMPLE ID	RESULTS	DETECTION LIMITS
S-1A	ND	11.8
S-1B	ND	9.90
S-2A	ND	10.1
S-2B	19.2	9.67
S-3A	20.2	10.1
S-3B	31.7	9.90
S-4A	401	9.83
S-5A	592	9.49
S-6A	2960	10.1
S-4B [water]	759	0.643
S-5B [water]	25.7	0.630
S-6B [water]	7.44	0.600

RESULTS FOR ALL SAMPLES, EXCEPT WATER SAMPLES, ARE REPORTED ON A DRY-WEIGHT BASIS.

ND = not detected.
< = less than.

Thomas J. Mullen
Vice-President

ATTACHMENT 3

A.A. LABS, INC.
Analytical Associates Laboratory
NJDEP CERTIFICATION # 12660

1375 OFFICE CENTER
PRINCETON MEADOWS
P.O. BOX 749
PLAINSBORO, N.J. 08536
609-799-8787

REPORT TO: Kaselaan & D'Angelo Assoc., Inc.
515 Grove St.
Haddon Heights, NJ
08035
ATTN: Andy Rola

DATE SAMPLED: -
SAMPLED BY: customer
DATE SUBMITTED: 5/4/90
DATE EXTRACTED: 5/4/90
DATE ANALYZED: 5/7/90

REPORT DATE: 5/22/90

A.A. LAB LOG NO: 004358

CUSTOMER SAMPLE ID: C.R. Warner, Inc., Woodstown, NJ Sample: Composite of S-1A thru S-6 and S-1B thru S-3B

PARAMETERS	RESULTS (ppm)	DETECTION LIMIT (ppm)
PCB's:		
Arochlor 1016	ND	3.62
Arochlor 1221	ND	3.62
Arochlor 1232	ND	3.62
Arochlor 1242	ND	3.62
Arochlor 1248	ND	3.62
Arochlor 1254	ND	3.62
Arochlor 1260	ND	3.62

RESULTS ARE REPORTED ON A DRY-WEIGHT BASIS.

ND = not detected.
< = less than.

Thomas J. Mullen
Vice-President

ATTACHMENT 4

A.A. LABS, INC.
Analytical Associates Laboratory
NJDEP CERTIFICATION # 12660

1375 OFFICE CENTER
PRINCETON MEADOWS
P.O. BOX 749
PLAINSBORO, N.J. 08536
609-799-8787

REPORT TO: Kaselaan & D'Angelo Assoc., Inc.
515 Grove St.
Haddon Heights, NJ
08035
ATTN: Andy Rola

DATE SAMPLED: -
SAMPLED BY: customer
DATE SUBMITTED: 5/4/90
DATE EXTRACTED: -
DATE ANALYZED: 5/16/90

REPORT DATE: 5/22/90

A.A. LAB LOG NO: 004358

CUSTOMER SAMPLE ID: C.R. Warner, Inc., Woodstown, NJ; Sample: Composite of S-1A thru S-6A and S-1B thru S-3B

PARAMETERS	RESULTS (mg/kg)	DETECTION LIMITS(mg/kg)
Priority Pollutant Metals:		
Arsenic	0.36	0.36
Cadmium	ND	0.36
Chromium	15.37	2.2
Lead	ND	3.6
Mercury	ND	0.003
Selenium	ND	0.36
Silver	ND	0.73
Antimony	16.8	7.3
Beryllium	ND	0.36
Copper	2.93	0.75
Nickel	6.6	3.7
Thallium	ND	3.7
Zinc	12.4	0.75

ND = not detected.
< = less than.

Thomas J. Mullen
Vice-President

ATTACHMENT 5

A.A. LABS, INC.
Analytical Associates Laboratory
NJDEP CERTIFICATION # 12660

1375 OFFICE CENTER
PRINCETON MEADOWS
P.O. BOX 749
PLAINSBORO, N.J. 08536
609-799-8787

REPORT TO: Kaselaan & D'Angelo Assoc., Inc.
515 Grove St.
Haddon Heights, NJ
08035
ATTN: Andy Rola

DATE SAMPLED: -
SAMPLED BY: customer
DATE SUBMITTED: 5/4/90
DATE EXTRACTED: -
DATE ANALYZED: 5/16/90

REPORT DATE: 5/22/90

A.A. LAB LOG NO: 004359

CUSTOMER SAMPLE ID: C.R. Warner, Inc., Woodstown, NJ: Sample: Composite of S-4B thru S-6

PARAMETERS	RESULTS (mg/L)	DETECTION LIMITS (mg/L)
Priority Pollutant Metals:		
Arsenic	ND	0.005
Cadmium	ND	0.005
Chromium	ND	0.03
Lead	ND	0.05
Mercury	ND	0.002
Selenium	ND	0.005
Silver	ND	0.01
Antimony	ND	0.08
Beryllium	ND	0.08
Copper	0.02	0.01
Nickel	ND	0.05
Thallium	ND	0.05
Zinc	0.13	0.01

ND = not detected.
< = less than.

Thomas J. Mullen
Vice-President

ATTACHMENT 6

A.A. LABS, INC.
Analytical Associates Laboratory
NJDEP CERTIFICATION # 12660

1375 OFFICE CENTER
PRINCETON MEADOWS
P.O. BOX 749
PLAINSBORO, N.J. 08536
609-799-8787

REPORT TO: Kaselaan & D'Angelo Assoc., Inc.
515 Grove St.
Haddon Heights, NJ
08035
ATTN: Andy Rola

DATE SAMPLED: -
SAMPLED BY: customer
DATE SUBMITTED: 5/4/90
DATE EXTRACTED: 5/7/90
DATE ANALYZED: 5/7/90

REPORT DATE: 5/22/90

A.A. LAB LOG NO: 004359

CUSTOMER SAMPLE ID: C.R. Warner, Inc., Woodstown, NJ; Sample: Composite of S-4B thru S-6B

PARAMETERS	RESULTS (ppm)	DETECTION LIMIT (ppm)
PCB's:		
Arochlor 1016	ND	0.001
Arochlor 1221	ND	0.001
Arochlor 1232	ND	0.001
Arochlor 1242	ND	0.001
Arochlor 1248	ND	0.001
Arochlor 1254	ND	0.001
Arochlor 1260	ND	0.001

ND = not detected.
< = less than.

Thomas J. Mullen
Vice-President

ATTACHMENT 1

ATTACHMENT F

Form DW 1-029
1/84

NEW JI DEPARTMENT OF ENVIRONMENTAL JECTION
DIVISION OF WASTE MANAGEMENT

INSPECTION REPORT

REPORT PREPARED FOR:

- ☒ Generator
- ☒ Transporter
- ☒ HWM (TSD) Facility

FACILITY INFORMATION

Name: C. R. Warner

Address: East Lake Rd
Woodstown

Lot: 2-1 Block: 74

County: Salem

Phone: 769-1188

EPA ID#: NJD011381174

Date of Inspection: 4-22-87

PARTICIPATING PERSONNEL

State or EPA Personnel: L. Range

Facility Personnel: BUD STOCKLIN
DOLORES WARNER

Report Prepared by Name: L. Range

Region: Southern

Telephone#: (609) 346-5000

Reviewed by: Terry Ostrander

Date of Review: 5/14/87

ATTACHMENT 1

FACILITY NAME: C.R. Warner

ADDRESS: East Lake Rd
Woodstown

TIME IN: 1115

COUNTY: Salem

TIME OUT: 1530

EPA ID : NJD011881174

DATE OF INSPECTION: 4/22/87

PHOTOS TAKEN ☐ YES ☒ NO

If yes, how many? _____

SAMPLE TAKEN ☐ YES ☒ NO NO. OF SAMPLES _____

NJDEP ID # _____

MANIFESTS REVIEWED ☒ YES ☐ NO

Number of manifests in compliance all

Number of manifests not in compliance 0

List manifest document numbers of those manifests not in compliance.

ATTACHMENT 2

SUMMARY OF FINDINGS

FACILITY DESCRIPTION AND OPERATIONS

C. R. Warner, Inc., operating under permit # 1709B, acts as a waste oil recycler, accepting waste oil codes x721 through x727 for the purpose of resale.

A/G tanks act as storage, with a total storage capacity of 250,000 gal.

Standards for oil accepted into the facility are as follows: flashpoint, >140°, PCB content <50 ppm, BS+W <20%.

Incoming waste oil is analyzed, and pending acceptable analytical results, offloaded into tanks 5, 6, or 7. The offloaded oil is heated to approx 180° to encourage separation and allow any water to settle out. The water is then pumped into tank 3 or 9. The oil is then filtered through a sweco situated above tank 8. Any oil with water still remaining is then pumped to tank 4, where it undergoes additional heating. Once the oil has reached a BS+W of <2%, it is pumped into tanks 1 or 2, to await resale.

ATTACHMENT 3

Describe the activities that result in the generation of hazardous waste.

1) changing of filters in pumps ~~and~~
2) tank cleanouts
3) any residue, spills
4) sludge from suveco

Identify the hazardous waste located on site, and estimate the approximate quantities of each. (Identify Waste Codes)

4- 55 gal drums x 728
Tank 1 (actually product) finished oil) 27,248 gal
Tank 2 (Actually finished oil) 18,703 gal
Tank 3 28,890 gal
Tank 4 16,420 gal
Tank 5 5000 gal
Tank 6 3,250 gal
Tank 7 2,000 gal
Tank 8 0
Tank 9 8000 gal

ATTACHMENT 4

GENERATOR INSPECTION CHECKLIST

		YES	NO	N/A
7:26-8.5	Hazardous waste determination			
	(a) Did the generator test its waste to determine whether it is hazardous?	✓	—	—
	Is the waste hazardous?	✓	—	—
7:26-8.5(b)2	Is the generator determining that its waste exhibits a hazardous waste characteristic(s) based on its knowledge of the material(s) or processes used?	✓	—	—
	Has hazardous waste been shipped off site since November 19, 1980?	✓	—	—
	If yes, how many shipments, off site, have been made and describe the approximate size of an average shipment made on a monthly basis. If facility is a small quantity generator, please explain. 1986 - 8 shipments, 6000 gal each, x 728. 1987 - 3 shipments, 6000 gal each, x 728			
7:26-7.4(a)1	Does the generator have an EPA ID #?	✓	—	—
7:26-7.4(a)4	Does each manifest have the following information? Please circle the elements missing and obtain a copy of the incomplete manifests. (List those manifests that are deficient)	✓	—	—
7:26-7.4(a)4i	The generator's name, address and phone number?	✓	—	—
7:26-7.4(a)4ii	The generator's EPA ID number?	✓	—	—
7:26-7.4(a)4iii	The transporter(s) name, address and phone number?	✓	—	—
7:26-7.4(a)4iv	The transporter(s) EPA ID number?	✓	—	—
7:26-7.4(a)4v	The name, address and phone number of the designated TSD facility?	✓	—	—
7:26-7.4(a)4vi	The TSDF's EPA ID number?	✓	—	—
7:26-7.4(a)4vii	The name, type and quantity of hazardous waste being shipped, including such particulars as may be required regarding same?	✓	—	—

ATTACHMENT 5

		YES	NO	N/A
7:26-7.4(a)4viii	Special handling instructions and any other information required on the form to be shipped by the generator?	✓	—	—
7:26-7.4(a)5	Before allowing the manifested waste to leave the generator's property, did the generator:			
7:26-7.4(a)5i	Sign the manifest certification by hand?	✓	—	—
7:26-7.4(a)5ii	Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest?	✓	—	—
7:26-7.4(a)5iii	Retain one copy and forward one copy to the state of origin and one copy to the state of destination?	✓	—	—
7:26-7.4(a)5iv	Give remaining copies of the manifest form to the transporter?	✓	—	—
7:26-7.4(f)1	Has the generator maintained facility records for three (3) years? (Manifest(s), exception report(s) and waste analysis)	✓	—	—
7:26-7.4(h)1	Has the generator received signed copies of portion B (from the TSD facility) of all manifests for waste shipped off site more than 35 days ago?	✓	—	—
7:26-7.4(h)2	If not:			
	1. Did the generator contact the hauler and/or the owner or operator of the TSDF and the NJDEP at 609-292-9877 to inform the NJDEP of the situation, and	—	—	✓
	2. Have exception reports been submitted to the Department covering any of these shipments made more than 45 days ago?	—	—	✓
	Before transporting or offering hazardous waste for transportation off site, does the generator?			
7:26-7.2(a)	Conspicuously lable appropriate manifest numbers on all hazardous waste containers that are intended for shipment?	✓	—	—
7:26-7.2(b)	Insure that all containers used to transport hazardous waste off site are in conformance with applicable DOT regulations (i.e., 49 CFR 171 - 49 CFR 179)?	✓	—	—

		YES	NO	N/A
7:26-9.3	Accumulation time			
	How is waste accumulated on site?			
	☒ Containers < 90 days storage once it reaches 35gal capacity			
	☒ Tanks (complete HWMF checklist)			
	☒ Aboveground ☐ Below ground			
	☐ Surface impoundments (complete HWMF checklist			
	☐ Piles (complete HWMF checklist)			
7:26-9.3(a)3	Is each container clearly dated with each period of accumulation so as to be visible for inspection?	✓	—	—
7:26-9.3(a)1	Is waste accumulated for more than 90 days? tank storage >90 day	✓	—	—
	If yes, complete HWMF checklist.			

STOP HERE IF THE HAZARDOUS WASTE MANAGEMENT FACILITY (TSD) CHECKLIST IS FILLED OUT.

SHORT TERM ACCUMULATION STANDARDS (FOR GENERATORS WHO ACCUMULATE WASTE IN CONTAINERS FOR 90 DAYS OR LESS)

		YES	NO	N/A
7:26-9.4	Containers			
	What type of containers are used for storage. Describe the size, type and quantity and nature of waste (e.g., 12 fifty five gallon drums of waste acetone). 55 gal drums 4 drums x728			
7:26-9.4(d)1i	Do the containers appear to be in good condition, not in danger of leaking?	✓	—	—
	If no, please describe the type, condition and number of leaking or corroded containers. Be detailed and specific.			
7:26-9.4(d)4i	Are all containers securely closed except those in use?	✓	—	—
7:26-9.4(d)4iii	Do containers appear to be properly handled or stored in a manner which will minimize the risk of the container rupturing or leaking?	✓	—	—
7:26-9.4(d)4iv	Are containerized hazardous waste segregated in storage by waste type?	✓	—	✓
7:26-9.4(d)4v	Is every container arranged so that its identification label is visible?	✓	—	—
7:26-9.4(d)5	Is the storage area inspected at least daily?	✓	—	—
7:26-9.4(d)6	Are containers holding ignitible and reactive wastes located at least 50 feet (15 meters) from the facility's property line?	✓	—	—
7:26-11.2	Tanks			
7:26-12.1(a)	Does the generator store hazardous waste in tanks?	—	—	—
	If yes, what are the approximate number and size of tanks containing hazardous waste?			
	Identify the waste treated/stored in each tank.			

ATTACHMENT 8

		YES	NO	N/A
	General Operating Requirements			
7:26-11.2(a)2	Are the tanks maintained so that there is no evidence of past, present, or risk of future leaks?	___	___	___
	If no, please explain.			
	Are there leaking tanks?	___	___	___
7:26-11.2(a)2	Are all hazardous wastes or treatment reagents being placed in tanks compatible with the tank material so that there is no danger or ruptures, corrosion, leaks or other failures?	___	___	___
7:26-11.2(3)	Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure?	___	___	___
7:26-11.2(a)4	If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow from the tank, e.g., bypass system to a standby tank?	___	___	___
7:26-11.2(d)	Inspections			
	Is the tank(s) inspected each operating day for:			
	1. Discharge control equipment	___	___	___
	2. Monitoring equipment	___	___	___
	3. Level of waste in tank	___	___	___
	4. Construction of materials of the tank	___	___	___
	5. Are the tanks and surrounding areas (e.g., dike) inspected weekly for leaks, corrosion or other failures?	___	___	___
7:26-9.2(b)	Are there underground tanks used to store hazardous waste?	___	___	___
	If yes, how many and can they be entered for inspection?	___	___	___
7:26-11.2(e)	Are ignitible or reactive wastes stored in a manner which protects them from a source of ignition or reaction?	___	___	___
	If no, please explain.			

		YES	NO	N/A
7:26-11.2(f)	Does it appear that incompatible wastes are being stored separate from each other?	___	___	___
7:26-9.4(g)4	Personnel training			
	Have facility personnel successfully completed a program of classroom instruction or on-the-job training since six months after the date of their employment or assignment to the facility or to a new position at the facility?	___	___	___
7:26-9.4(g)2	Is the program directed by a person trained in hazardous waste management procedures and does it include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed?	___	___	___
7:26-9.4(g)5	If yes, have facility personnel taken part in an annual review of the initial training?	___	___	___
	Is there written documentation of the following:			
7:26-9.4(g)6i	Job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job?	___	___	___
7:26-9.4(g)6ii	A written job description for each position related to hazardous waste management?	___	___	___
7:26-9.4(g)6iii	A written description of the type and amount of both introductory and continuing training that has been and will be given to personnel in jobs related to hazardous waste management?	___	___	___
7:26-9.4(g)6iv	Documentation of actual training or experience received by personnel?	___	___	___
7:26-9.4(g)7	Are training records kept on all current employees until closure of the facility and training records kept on former employees for three years from their last date of employment?	___	___	___
7:26-9.4(g)8	Are semi-annual drills conducted involving all employees and appropriate local authorities to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures development pursuant to NJAC 7:26-9.7?	___	___	___

YES NO N/A

7:26-9.6 Preparedness and prevention

Does the facility comply with preparedness and prevention requirements including maintaining:

		YES	NO	N/A
7:26-9.6(b)1	An internal communications or alarm system?	___	___	___
7:26-9.6(b)2	A telephone or other device to summon emergency assistance from local authorities?	___	___	___
7:26-9.6(b)3	Portable fire equipment, spill control equipment, and decontamination equipment?	___	___	___
7:26-9.6(b)4	Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems?	___	___	___
7:26-9.6(c)	Is equipment tested and maintained?	___	___	___
7:26-9.6(d)1	Is there immediate access to communications or alarm systems during handling of hazardous waste?	___	___	___
7:26-9.6(e)	Adequate aisle space to allow unobstructed movement of personnel fire protection equipment, spill control equipment and decontamination equipment?	___	___	___
	If no, please explain.			
	In your opinion, do the types of waste on site require all of the above procedures, or are some not required?	___	___	___
	Explain.			
7:26-9.6(f)	Has the facility made the following arrangements, as appropriate for the type of waste handled on site:	___	___	___
7:26-9.6(f)1	Familiarize police, fire departments and emergency response teams with the layout of the facility and hazardous waste handled?	___	___	___
7:26-9.6(f)2	Where more than one police and fire department might respond to an emergency, is there an agreement designating primary emergency authority to a specific police or fire department, and agreements with any others to provide support to the primary emergency authority?	___	___	___

ATTACHMENT 12

		YES	NO	N/A
7:26-9.6(f)3	Agreements with emergency response contractors, and equipment suppliers?	___	___	___
7:26-9.6(f)4	Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or discharges at the facility?	___	___	___
7:26-9.6(f)5	Arrangements with local fire departments to inspect the facility on a regular basis with at least two (2) inspections annually?	___	___	___
7:26-9.7	Contingency plan and emergency procedures			
7:26-9.7(a)	Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions, hazards to human health or environment, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water?	___	___	___
7:26-9.7(b)	Are provisions of the plan carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment?	___	___	___
7:26-9.7(c)	Does the contingency plan describe the actions facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility?	___	___	___
7:26-9.7(d)	Did the owner or operator prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or 151 or a Discharge Prevention, Containment and Countermeasure (DPCC) Plan in accordance with N.J.A.C. 7:1E-4.1 et seq.?	___	___	___
	If yes, did the owner or operator amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section?	___	___	___
7:26-9.7(e)	Does the plan describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services?	___	___	___

		YES	NO	N/A
7:26-9.7(f)	Does the plan list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and is this list kept up to date? Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.	___	___	___
7:26-9.7(g)	Does the plan include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required? Is the list kept up-to-date? In addition, does the plan include the location and a physical description of each item on the list, and a brief outline of its capabilities?	___	___	___
7:26-9.7(h)	Does the plan include an evacuation procedure for facility personnel where there is a possibility that evaucation could be necessary? Does this plan describe signal(s) to be used to begin evacuation, evacuation routes, and alternative evaucation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires)?	___	___	___
7:26-9.7(i)	Is a copy of the contingency plan and all revisions to the plan:			
	1. Maintained at the facility; and	___	___	___
	2. Has the contingency plan been submitted to local authorities (police fire departments, emergency response teams)?	___	___	___

ATTACHMENT 14

TRANSPORTER INSPECTION

		YES	NO	N/A
	Does the transporter carry hazardous waste? If yes, explain.	✓		
7:26-7.5(c)1	Has the transporter obtained a hazardous waste collector/hauler license from the NJDEP? License #:	✓		
7:26-7.5(d)1	Does the transporter have an EPA identification number?	✓		
7:26-3.4(h)	Do the vehicle(s) have the NJSWA registration number in letters and numbers at least three (3) inches in height?	✓		
7:26-3.4(h)	Is the capacity of the vehicle marked on both sides of the vehicle in letters and numbers at least three (3) inches in height?	✓		
7:26-3.4(h)	Is the current NJSWA registration certificate in the vehicle?	✓		
7:26-3.2(b)	Does the license plate number and registration number on the certificate correspond to the vehicle's license plate number and the registration number displayed on the vehicle?	✓		
7:26-7.5(d)18	Does the transporter have in each registered vehicle a current list of all federal and state agencies to be notified in the event of a discharge of hazardous waste during transportation?	✓		
	How many vehicles were inspected? 3 tractors # tankers - 7000 gal each capacity			
7:26-7.5(d)12	Have the drivers received any instruction or training to do with the handling of hazardous waste?	✓		
7:26-7.5(d)15	Is the transporter equipped with emergency equipment in conformance with subpart H of 49 CFR 393? List equipment.	✓		

ATTACHMENT 15

		YES	NO	N/A
7:26-7.5(f)1i to iv	Has the transporter ever had an unauthorized discharge of hazardous waste during transportation?	—	✓	—
	If yes, did the transporter:			
7:26-7.5(f)3i	Give notice, if required by 49 CFR 171.15 to the National Response Center?	—	—	✓
7:26-7.5(f)3ii	Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials, Transportation Bureau, Department of Transportation, Washington, DC 20590?	—	—	✓
7:26-7.5(f)3iii	Contact the Department at 609-292-5560 or 609-292-7172?	—	—	✓

MANIFESTS

7:26-7.5(d)5	Does the transporter have a manifest form to accompany the waste shipment?	—	—	✓
	Manifest document number:_____			
7:26-7.3(a)1	If the shipment originated from a site in New Jersey and is destined for another site in New Jersey, is the manifest form one supplied by the NJDEP?	—	—	✓
7:26-7.3(a)2	If the shipment originated from a site in another state and is destined for a TSDF in New Jersey, is the manifest form one supplied by the NJDEP or one approved for use in New Jersey by the Department?	—	—	✓
7:26-7.3(a)3	If the shipment originated from a site in New Jersey and is destined for a TSDF in another state, is the manifest form one supplied by the NJDEP or one approved for use by the Department?	—	—	✓
7:26-7.5(d)11	If the hauler was unable to deliver a manifested load to the designated facility, did they contact the generator and gain further instructions from them?	—	—	✓
	If yes, cite generator name and manifest number involved.			

ATTACHMENT 16

HAZARDOUS WASTE FACILITY STANDARDS

		YES	NO	N/A
7:26-9.4(b)	Waste Analysis			
7:26-9.4(b)1i	Is there a detailed chemical and physical analysis of a representative sample of the waste(s) or each waste? (At a minimum, this analysis most contain all the information necessary for proper treatment, storage or disposal of the waste.)	✓	—	—
7:26-9.4(b)1iii	Does the character of the waste handled at the facility change from day to day, week to week, etc., thus requiring frequent testing?	—	✓	—
	Check only one: Waste characteristics vary All waste(s) are basically the same ✓ Company treats all waste(s) as hazardous			
7:26-9.4(b)2	Is there a written waste analysis plan at the facility?	✓	—	—
	Does it contain:			
7:26-9.4(2)i	Parameters for which each hazardous waste stream will be analyzed including constituents listed in NJAC 7:26-8.16 and the rational for the selection of these parameters?	✓	—	—
7:26-9.4(b)2ii	The test methods which will be used to test for these parameters?	✓	—	—
7:26-9.4(b)2iii	The sampling method which will be used to obtain a representative sample of the waste to be analyzed?	✓	—	—
7:26-9.4(b)2iv	The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up-to-date?	✓	—	—
7:26-9.4(b)2v	For off-site facilities, the waste analysis that hazardous waste generators have agreed to supply?	✓	—	—
7:26-9.4(b)2vii	Procedures which will be used to identify changes in waste stream characteristics?	✓	—	—
7:26-9.4(b)3	Did the owner or operator submit the waste analysis plan to the Department?	✓	—	—
	If yes, when was the plan submitted?			

ATTACHMENT 12

		YES	NO	N/A
	Does hazardous waste come to this facility from an outside source? (e.g., another generator)	✓	—	—
	If yes, list the name(s) of generators.			
7:26-9.4(b)4	If waste comes from an outside source, are there procedures in the waste analysis plan to insure that waste received conforms to the accompanying manifest?	✓	—	—
	Does the plan describe:			
7:26-9.4(b)4i	The procedures which will be used to determine the identity of each shipment of waste managed at the facility?	✓	—	—
7:26-9.4(b)4ii	The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling?	✓	—	—
7:7:26-9.4(h)	Security			
	Does the facility have:			
7:26-9.4(h)1i	A 24 hour surveillance system which continuously monitors and controls entry onto the active portion of the facility?	✓	—	—
7:26-9.4(h)1ii	An artificial or natural barrier, which completely surrounds the active portion of the facility; and a means to control entry, at all times, through the gates or other entrances to the active portion of the facility?	✓	—	—
7:26-9.4(h)3	Are there "Danger-Unauthorized Personnel Keep Out" signs posted at each entrance to the facility?	✓	—	—
	If no, explain what measures are taken for security.			

ATTACHMENT 18

		YES	NO	N/A
7:26-9.4(f)	General Inspection Requirements			
7:26-9.4(f)1	Does the owner or operator inspect the facility for malfunctions and deterioration, operator errors and discharges which may be causing, or may lead to:			
7:26-9.4(f)1i	Discharge of hazardous waste constituents to the environment?	✓	—	—
7:26-9.4(f)1ii	A threat to human health?	✓	—	—
7:26-9.4(f)3	Has the owner or operator developed, and does the owner or operator follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are utilized for the prevention, detection or response to environmental or human health?	✓	—	—
7:26-9.4(f)3i	Did the owner or operator submit the written inspection schedule to the department?	✓	—	—
	If yes, when was it submitted?			
7:26-9.4(f)3iii	Is the written inspection schedule kept at the facility?	✓	—	—
7:26-9.4(f)3iv	Does the schedule identify the types of problems to be looked for during the inspection?	✓	—	—
7:26-9.4(f)3v	Does the schedule include the frequency of inspection, based upon the rate of possible deterioration of the equipment and the probability of an environmental, or human health incident if the deterioration or malfunctions or any operator error goes undetected between inspections?	✓	—	—
7:26-9.4(f)5	Is there evidence that problems reported in the inspection log have been remedied?	✓	—	—
7:26-9.4(f)6	Does the owner/operator record inspections in a log?	✓	—	—
	Are these records kept for at least three (3) years from the date of inspection?	✓	—	—

ATTACHMENT 19

		YES	NO	N/A
	Does the records include the date, and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial action?	✓		
7:26-9.4(g)	Personnel training			
	Have facility personnel successfully completed a program of classroom instruction or on-the-job training within 6 months of having been employed?	✓		
7:26-9.4(g)2	Is the program directed by a person trained in hazardous waste management procedures and does it include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed?	✓		
7:26-9.4(g)5	If yes, have facility personnel taken part in an annual review of training?	✓		
	Is there written documentation of the following:	✓		
7:26-9.4(g)6i	Job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job?	✓		
7:26-9.4(g)6ii	A written job description for each position related to hazardous waste management?	✓		
7:26-9.4(g)6iii	A written description of the type and amount of both introductory and continuing training given to personnel in jobs related to hazardous waste management?	✓		
7:26-9.4(g)6iv	Documentation of actual training or experience received by personnel?	✓		
7:26-9.4(g)7	Are training records kept on all current employees until closure of the facility and training reocrds kept on former employees for 3 years from their last date of employment?	✓		
7:26-9.4(g)8	Are semi-annual drills conducted involving all employees and appropriate local authorities to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures development pursuant to NJAC 7:26-9.7?	✓		

ATTACHMENT 20

		YES	NO	N/A
7:26-9.6	Preparedness and prevention			
	Does the facility comply with preparedness and prevention requirements including maintaining:			
7:26-9.6(b)1	An internal communications or alarm system?	✓	—	—
7:26-9.6(b)2	A telephone or other device to summon emergency assistance from local authorities?	✓	—	—
7:26-9.6(b)3	Portable fire equipment, spill control equipment, and decontamination equipment?	✓	—	—
7:26-9.6(b)4	Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems?	✓	—	—
7:26-9.6(c)	Is equipment tested and maintained?	✓	—	—
7:26-9.6(d)1	Is there immediate access to communications or alarm systems during handling of hazardous waste?	✓	—	—
7:26-9.6(e)	Adequate aisle space to allow unobstructed movement of personnel fire protection equipment, spill control equipment and decontamination equipment?	✓	—	—
	If no, please explain.			
	In your opinion, do the types of waste on site require all of the above procedures, or are some not required?	✓	—	—
	Explain.			
7:26-9.6(f)	Has the facility made the following arrangements, as appropriate for tye type of waste handled on site?	✓	—	—
7:26-9.6(f)1	Familiarize police, fire departments and emergency response teams with the layout of the facility and hazardous waste handled?	✓	—	—

ATTACHMENT 21

		YES	NO	N/A
7:26-9.6(f)2	Where more than one police and fire department might respond to an emergency, is there an agreement designating primary emergency authority to a specific police or fire department, and agreements with any others to provide support to the primary emergency authority?	✓	—	—
7:26-9.6(f)3	Agreements with emergency response contractors, and equipment suppliers?	✓	—	—
7:26-9.6(f)4	Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or discharges at the facility?	✓	—	—
7:26-9.6(f)5	Arrangements with local fire departments to inspect the facility on a regular basis with at least two (2) inspections annually?	✓	—	—
7:26-9.7	Contingency plan and emergency procedures			
7:26-9.7(a)	Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions, hazards to human health or environment, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water?	✓	—	—
7?26-9.7(b)	Are provisions of the plan carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment?	✓	—	—
7:26-9.7(c)	Does the contingency plan describe the actions facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility?	✓	—	—
7:26-9.7(d)	Did the owner or operator prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or 151 or a Discharge Prevention, Containment and Countermeasure (DPCC) Plan in accordance with N.J.A.C. 7:1E-4.1 et seq.?	✓	—	—
	If yes, did the owner or operator amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section?	✓	—	—

ATTACHMENT 22

7:26-9.7(e)	Does the plan describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services?	✓	—	—
7:26-9.7(f)	Does the plan list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and is this list kept up-to-date? Where more than one person is listed, one shall be named as primary emergency coordinator and others shall assume responsibility as alternates.	✓	—	—
7:26-9.7(g)	Does the plan include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required? Is the list kept up-to-date? In addition, does the plan include the location and a physical description of each item on the list, and a brief outline of its capabilities?	✓	—	—
7:26-9.7(h)	Does the plan include an evacuation procedure for facility personnel where there is a possibility that evacuation could be necessary? Does this plan describe signal(s) to be used to begin evacuation, evacuation routes, and alternative evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires)?	✓	—	—
7:26-9.7(i)	Is a copy of the contingency plan and all revisions to the plan:			
	1. Maintained at the facility; and	✓	—	—
	2. Has the contingency plan been submitted to local authorities (police, fire departments, emergency response teams)?	✓	—	—
7:26-9.8	Closure plan			
7:26-9.8(c)	Does the facility have a written closure plan?	✓	—	—
	Does the owner/operator keep a written copy of the closure plan and all revisions to the plan at the facility?	✓	—	—
	If yes, does the plan include:			

ATTACHMENT 23

		YES	NO	N/A
7:26-9.8(e)1i	A description of how and when the facility will be partially closed (if applicable) and ultimately closed? when n/a	✓	—	—
7:26-9.8(e)1ii	The maximum extent of the operation which will be open during the life of the facility?	✓	—	—
7:26-9.8(e)2	An estimate of the maximum inventory of wastes in storage or in treatment at any given time during the life of the facility?	✓	—	—
7:26-9.8(e)3	A description of the steps needed to decontaminate facility equipment during closure?	✓	—	—
7:26-9.8(e)4	A schedule for final closure including the anticipated date when the wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure? final closure date not anticipated	—	—	✓
	Post Closure Plan			
7:26-9.9(g)	Does the facility have a written post-closure plan kept at the facility?	—	—	✓
	If yes, does the plan:			
7:26-9.9(i)	Identify the activities which will be carried on after closure and the frequency of these activities?	—	—	✓
7:26-9.9(i)1	Include a description of the planned groundwater monitoring activities and frequencies at which they will be performed?	—	—	✓
7:26-9.9(i)2	Include a description of the planned maintenance activities, and frequency at which they will be performed, to insure the following:	—	—	✓
7:26-9.9(i)2i	The integrity of the cap and final cover or other containment structures where applicable?	—	—	✓
7:26-9.9(i)2ii	Describe the function of the facility monitoring equipment?	—	—	✓
7:26-9.9(i)3	Include the name, address and phone number of a person or office to contact about the disposal facility during the post-closure period?	—	—	✓
	Does the owner/operator have a written estimate of the cost of post-closure for the facility?	—	—	✓
	If yes, what is it?			

ATTACHMENT 24

Please circle all appropriate activities and answer questions on indicated pages for all activities circled.

Storage	Treatment	Disposal
Container - pg. 9	(Tank - pg. 12)	Landfill - pg. 18
Tank, above ground - pg. 12	Surface Impoundments - pg. 15	
Tank, below ground - pg. 12	Incineration - pg. 20	Surface Impoundments - pg. 15
Surface Impoundments - pg. 15	Thermal Treatment - pg. 23	Other_____
Waste Piles - pg. 17		
Other_____	Chemical, Physical and Biological Treatment - pg. 25	
	Other_____	

		YES	NO	N/A
7:26-9.4(d)	Containers *not for >90 day storage* What type of containers are used for storage? Describe the size, type, quantity and nature of wastes (e.g., 12 fifty-five gallon drums of waste acetone)			
7:26-10.4(b)	Is there a containment system for spills, leaks and precipitation? Is yes, describe the containment system.			✓
7:26-9.4(d)1i	Do the containers appear to be of sturdy leak-proof construction of adequate wall thickness, weld, hinge and seam strength, and of sufficient material strength to withstand side and bottom shock, while filled, without impairment of the container's ability to contain hazardous waste? If no, explain.			✓

ATTACHMENT 25

		YES	NO	N/A
7:26-9.4(d)1ii	Are the lids, caps, hinges or other closure devices of sufficient strength that when closed, they will withstand dropping, overturning or other shock without impairment of the container's ability to contain hazardous waste? If no, explain.	—	—	✓
7:26-9.4(d)2	Do the containers appear to be in good condition, not in danger of leaking?	—	—	✓
7:26-9.4(d)2	If not, please describe the type, condition and number of leaking or corroded containers. Be detailed and specific.			
7:26-9.4(d)4i	Are all containers securely closed, except those in use, so that there is no escape of hazardous waste or its vapors? If no, explain.	—	—	✓
7:26-9.4(d)4iii	Do containers appear to be properly opened, handled or stored in a manner which will minimize the risk of the container rupturing or leaking? If no, explain.	—	—	✓
7:26-9.4(d)iv	Are containerized hazardous wastes segregated in storage by waste type?	—	—	✓
7:26-9.4(d)v	Are containerized hazardous wastes arranged so that their identification label is visible?	—	—	✓
7:26-9.4(d)3	Are hazardous wastes stored in containers made of compatible materials?	—	—	✓

ATTACHMENT 26

		YES	NO	N/A
7:26-9.4(d)5	Does the owner/operator inspect the container storage area at least daily, looking for leaks and for deterioration caused by corrosion or other factors?	___	___	✓
7:26-9.4(d)6	Are containers holding ignitable and reactive waste located at least 50 feet (15 meters) away from the facility's property line?	___	___	✓
7:26-9.4(d)7i	Are incompatible wastes, or incompatible wastes and materials placed in the same container?	___	___	✓
	If yes, explain.			
7:26-9.4(d)7ii	Are hazardous wastes placed in unwashed containers that previously held incompatible wastes?	___	___	✓
	If yes, explain.			
7:26-9.4(d)7iii	Are containers holding hazardous waste that are incompatible with any waste or other materials stored nearby in other containers, open tanks, or surface impoundments separated from the other materials or protected from them by means of a dike, berm, wall or other device?	___	___	✓
7:26-9.4(e)1i	Are ignitable, reactive or incompatible wastes protected from sources of ignition or reaction?	___	___	✓
	If no, explain.			
7:26-9.4(e)1ii	Does the owner/operator confine smoking and open flames to specially designated locations when ignitable or reactive wastes are being handled?	___	___	✓
	If no, explain.			

		YES	NO	N/A
7:26-9.4(e)1iii	Does the owner/operator conspicuously place "No Smoking" signs whenever there is a hazard from ignitable or reactive waste?	—	—	✓
	If the treatment, storage or disposal of ignitable or reactive waste, and the mixture of incompatible wastes and materials, conducted so that it does not:			
7:26-9.4(e)2i	Generate extreme heat or pressure, fire or explosion, or violent reaction?	—	—	✓
7:26-9.4(e)2ii	Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health?	—	—	✓
7:26-9.4(e)2iii	Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk or fire or explosion?	—	—	✓
7:26-9.4(e)2iv	Damage the structural integrity of the device or facility containing the waste?	—	—	✓
7:26-9.4(e)2v	Threaten human health or the environment?	—	—	✓
7:26-11.2	Tanks			
	What are the approximate number and size of tanks containing hazardous waste?			

Tanks 1-5 42,000 gal capacity
Tanks 6-8 10,000 gal cap.
Tank 9 10,000 gal

Identify the waste treated/stored in each tank.

waste oil X721-726

General Operating Requirements

7:26-11.2(a)2	Are hazardous wastes or treatment reagents placed in the tank that could cause the tank or its inner liner to rupture, leak or corrode?	—	✓	—
	If yes, please explain.			
	Are there leaking tanks?	—	✓	—

ATTACHMENT 28

		YES	NO	N/A
7:26-11.2(a)2	Are all hazardous wastes or treatment reagents being placed in tanks compatible with the tank material so that there is no danger or ruptures, corrosion, leaks or other failures?	✓	—	—
7:26-11.2(3)	Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure?	—	—	✓
7:26-11.2(a)4	If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow from the tank, e.g., bypass system to a standby tank?	✓	—	—
7:26-11.2(c)	Inspections			
	Is the tank(s) inspected for:			
	1. Discharge control equipment (each operating day)	✓	—	—
	2. Monitoring equipment (each operating day)	✓	—	—
	3. Level of waste in tank (each operating day)	✓	—	—
	4. Construction of materials of the tank (weekly)	✓	—	—
	5. Are the tanks and surrounding areas (e.g., dike) inspected weekly for leaks, corrosion or other failures (weekly)?	✓	—	—
7:26-9.2(b)	Are there underground tanks used to store hazardous waste?	—	✓	—
	If yes, how many and can they be entered for inspection?	—	—	✓
	Has the underground tank been in use on or before November 19, 1980? Specify date.	—	—	✓
	If no, when was the tank placed in use?			
7:26-11.2(e)	Are ignitable or reactive wastes stored in a manner which protects them from a source of ignition or reaction?	✓	—	✓
	If no, please explain.			

Division of Waste M gement
Southern Regi
Vincentown, New Jersey
08088

6/19/86 Arrived: 1205
Time
Departed: 1410

6/11/1861

Facility Name: C. R. Warner, Inc.
Facility Representative: Bud Stocklin
Phone Number:
Position: Yard Supt
Address: East Lake Road, Woodstown, NJ 08098
Mailing Address: P.O. Box 134, Woodstown, NJ 08098
Inspector: L. Range

Facility Type: Waste Oil Storage & Reclamation EPA ID#: NJD011811174 Lot: 2-1 Block: 74
Weather Conditions: hot, hazy Wind Direction: NW Speed: 0-5 MPH: Temp: 83°

Operating Authorization

Facility is operating under (type of authorization): Haz. Waste Facility Permit

Summary of Inspection (check appropriate statement)

Facility: is in compliance with operating authorization: ✓
is not in compliance with operating authorization: ____
Facility: is in compliance with NJAC Title 7, Chapter 26: ✓
is not in compliance with the following statute provisions(s): ____

Overall housekeeping: Poor ____ Fair ____ Good ✓

Inspection Observations	Yes	No	N/A
1. Does the treatment process (including storage tanks) system show any signs of ruptures, leaks, or corrosion? If yes, explain. ____	____	✓	____
2. Spills. If yes, explain. ____	____	✓	____
3. Odors. If yes, explain. ____	____	✓	____

Container Storage: (7:26-9.4(d)

Drum No. 0 Stack Height 0 Storage Methods N/A

Do the containers appear to be in good condition, not in danger of leaking? If no, explain in detail. ____	____	____	✓
Are all containers closed except those in use?	____	____	✓
Are incompatible wastes stored separate from each other?	____	____	✓
Adequate aisle space?	____	____	✓

ATTACHMENT 30

words "Hazardous Waste" a[illegible] in compliance with the DOT labeling req[illegible]ments:

- generator name
- address
- UN, NA number
- DOT shipping name
- EPA ID number
- manifest number
- accumulation start date

Vehicles: (7:26-7.1 and 7.5)

one Warner vehicle present

Valid registration card
Numbers displayed
Properly placarded

Manifests: (7:26-7.4, 7.5 and 7.6)

Does each manifest have the following information?

The generators name, mailing address, telephone number, EPA ID number and signature?

The transporters name, EPA ID number and signature?

SWA transporter registration number?

The name, address, EPA ID number of the designated facility and signature?

A description of the wastes (DOT)?

The total quantity of each hazardous waste?

Has the generator received signed copies (from the TSDF) of all the manifests for waste shipped off site more than 35 days ago?

Record Keeping: (7:26-9.4 (f and i)

Are the following being kept properly?

1. Daily inspection log?
2. Daily operating log?
3. Waste inventory log?

Samples taken: Yes ___ No ✓ Number of samples _____

NJ DEP ID #

Photographs taken: Yes ___ No ✓

ATTACHMENT 31

Linda Range

Signature of Facility Representative

COMMENTS, OBSERVATIONS, MARY

Informed Betty, of Warner Oil, she could stop keeping a second incoming waste log required by last inspector. One incoming waste log is sufficient. Warner Oil also keeps their own log of all incoming waste listed separately under each generator name.

Discussed outgoing waste log w/ Bud Stockli and Betty Matczak. Outgoing waste is presently logged in the above log under Chem-Clear's name. Drums outgoing were previously unlogged. Betty agreed to log these on page beside Chem-Clear. Case to report all Warner's drums to Waste Conversions. Outgoing manifests will be held for inspector to review before filing.

Sweco not operating at this time.

ATTACHMENT 32

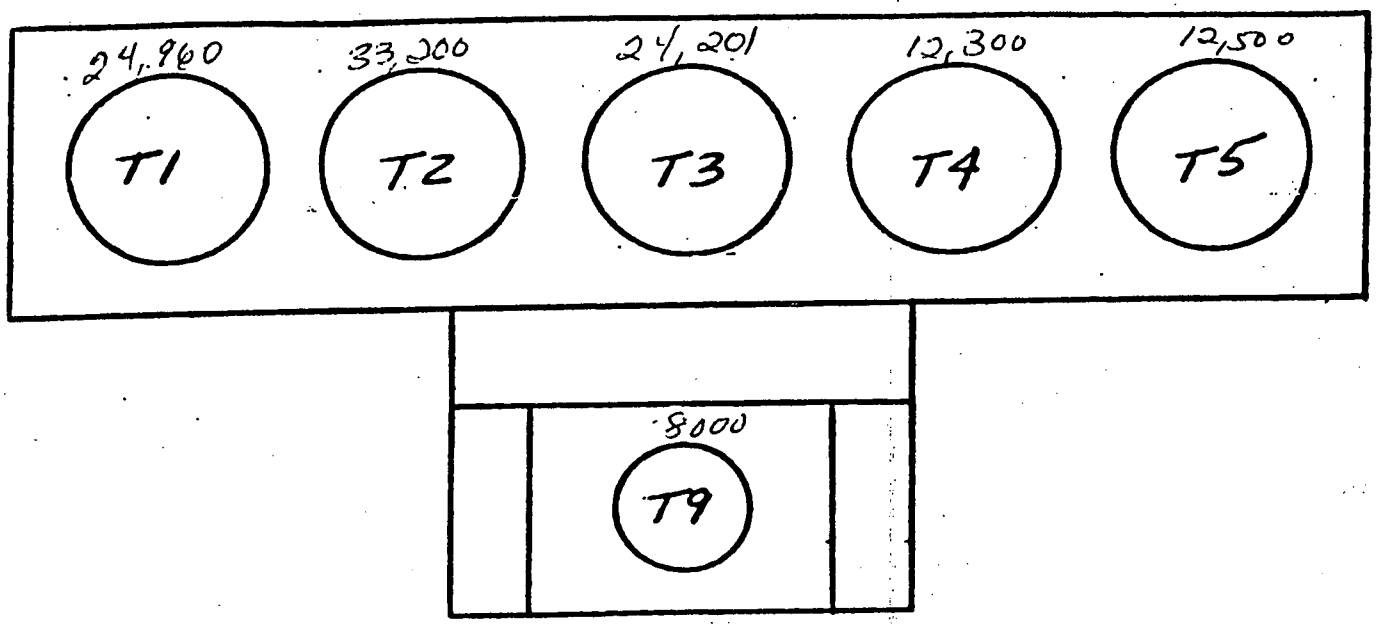
Linda Range
Signature of Inspector

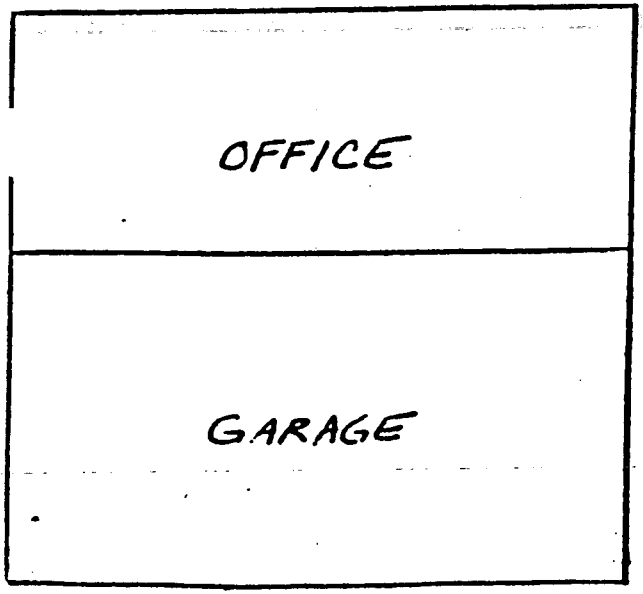
Barry L. Warner
Signature of Facility Representative

C.R. WARNER, INC.
DATE: 6/11/86
INSPECTOR: L. Ranz

not to scale

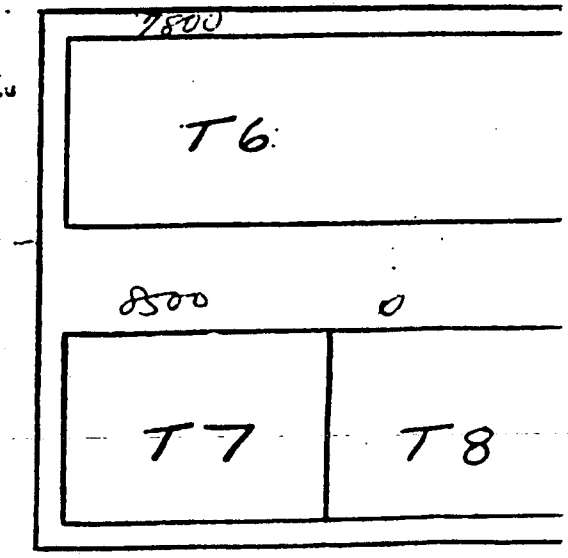
ATTACHMENT 33





Proposed installation of New Tanks

6/11/86



State of New Jersey
Department of Environmental Protection
Division of Waste Management
Southern Region
Vincentown, New Jersey
08088

Date: 5-22-85

Arrived: 10:05
Time
Departed: 11:45

Facility Name: C. R. Warner, Inc.
Facility Representative: Barry Warner
Phone Number: 769-1188
Position: President
Address: East Lake Road, Woodstown, NJ 08098
Mailing Address: P.O. Box 134, Woodstown, NJ 08098
Inspector: Tony Chmiel / Mary Jerniga
Facility Type: Waste Oil Storage & Reclamation
EPA ID#: NJD011811174
Lot: 2-1
Block: 74
Weather Conditions:
Wind Direction: NW
Speed: MPH: 0-5
Temp: 70°

Operating Authorization

Facility is operating under (type of authorization): AWFP

Summary of Inspection (check appropriate statement)

Facility: is in compliance with operating authorization: X
is not in compliance with operating authorization: ____
Facility: is in compliance with NJAC Title 7, Chapter 26: X
is not in compliance with the following statute provisions(s): ____

Overall housekeeping: Poor ____ Fair ____ Good X

Inspection Observations	Yes	No	N/A
1. Does the treatment process (including storage tanks) system show any signs of ruptures, leaks, or corrosion? If yes, explain.	___	X	___
2. Spills. If yes, explain.	___	X	___
3. Odors. If yes, explain.	___	X	___

Container Storage: (7:26-9.4(d)

Drum No. 0 Stack Height - Storage Methods -

Do the containers appear to be in good condition, not in danger of leaking? If no, explain in detail.	___	___	X
Are all containers closed except those in use?	___	___	X
Are incompatible wastes stored separate from each other?	___	___	X
Adequate aisle space?	___	___	X
Are containers stored according to waste characterization?	___	___	X

ATTACHMENT 34

	Yes	No	N/A
Is each container marked or labeled with the words "Hazardous Waste" and in compliance with the DOT labeling requirements:			
- generator name	—	—	X
- address	—	—	X
- UN, NA number	—	—	X
- DOT shipping name	—	—	X
- EPA ID number	—	—	X
- manifest number	—	—	X
- accumulation start date	—	—	X
Vehicles: (7:26-7.1 and 7.5)			
Valid registration card	—	—	— (no vehicles present)
Numbers displayed	—	—	—
Properly placarded	—	—	—
Manifests: (7:26-7.4, 7.5 and 7.6)			
Does each manifest have the following information?			
The generators name, mailing address, telephone number, EPA ID number and signature?	X	—	—
The transporters name, EPA ID number and signature?	X	—	—
SWA transporter registration number?	X	—	—
The name, address, EPA ID number of the designated facility and signature?	X	—	—
A description of the wastes (DOT)?	X	—	—
The total quantity of each hazardous waste?	X	—	—
Has the generator received signed copies (from the TSDF) of all the manifests for waste shipped off site more than 35 days ago?	X	—	— (AC)
Record Keeping: (7:26-9.4 (f and i)			
Are the following being kept properly?			
1. Daily inspection log?	X	—	—
2. Daily operating log?	X	—	—
3. Waste inventory log?	X	—	—

Samples taken: Yes ___ No X Number of samples _____

NJ DEP ID #

Photographs taken: Yes ___ No X

ATTACHMENT 35

Tony Chmiel
Signature of Inspector

Betty Metcyak
Signature of Facility Representativ

FACILITY NAME C.K. Warner Inc. DATE OF INSPECTION 5-22-85

EPA ID # NJD011881175 FILE NO. 17-15-01

COMMENTS, OBSERVATIONS, SUMMARY

T. Chmiel and Mary Jernigan were met by Mr. Barry Warner and taken on a tour of the facility. Mr. Warner explained the operation of the facility and his new plans for construction + installation of 3-30,000 gal tanks. We then met Betty Mateyak who showed us all the Manifests which were in order and we checked the logs which were in perfect order. Plans for new tank will be submitted to Jim Ball - HWS Engineering.

Tony Chmiel
Signature of Inspector

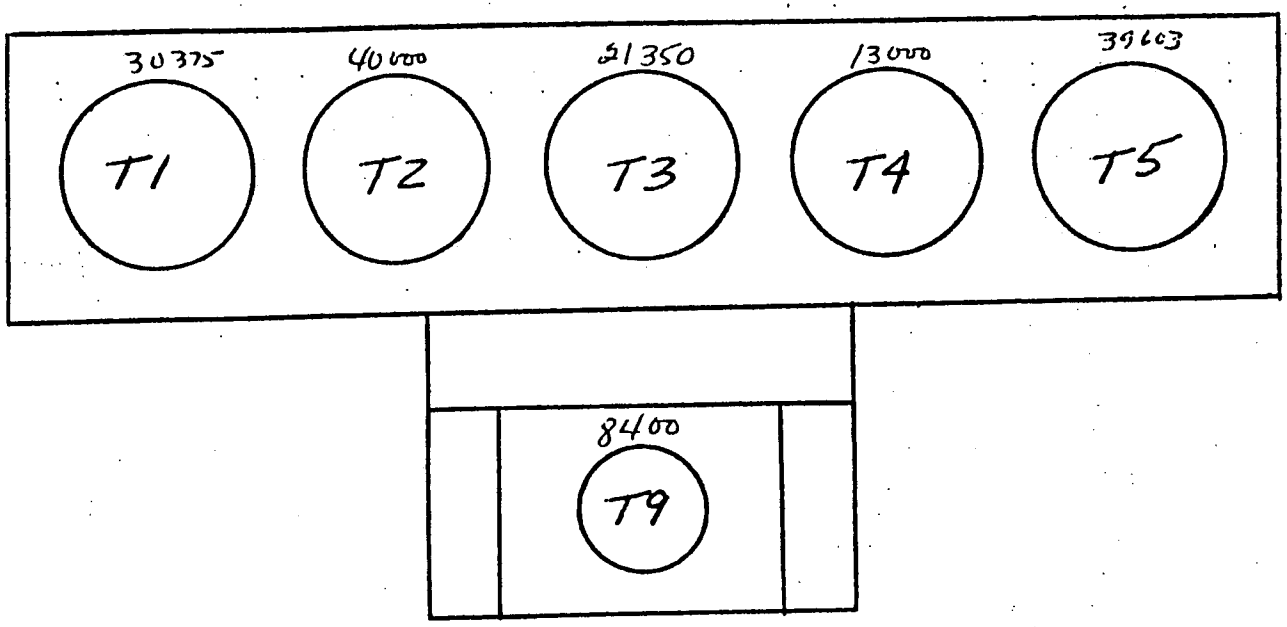
Betty Mateyak
Signature of Facility Representative

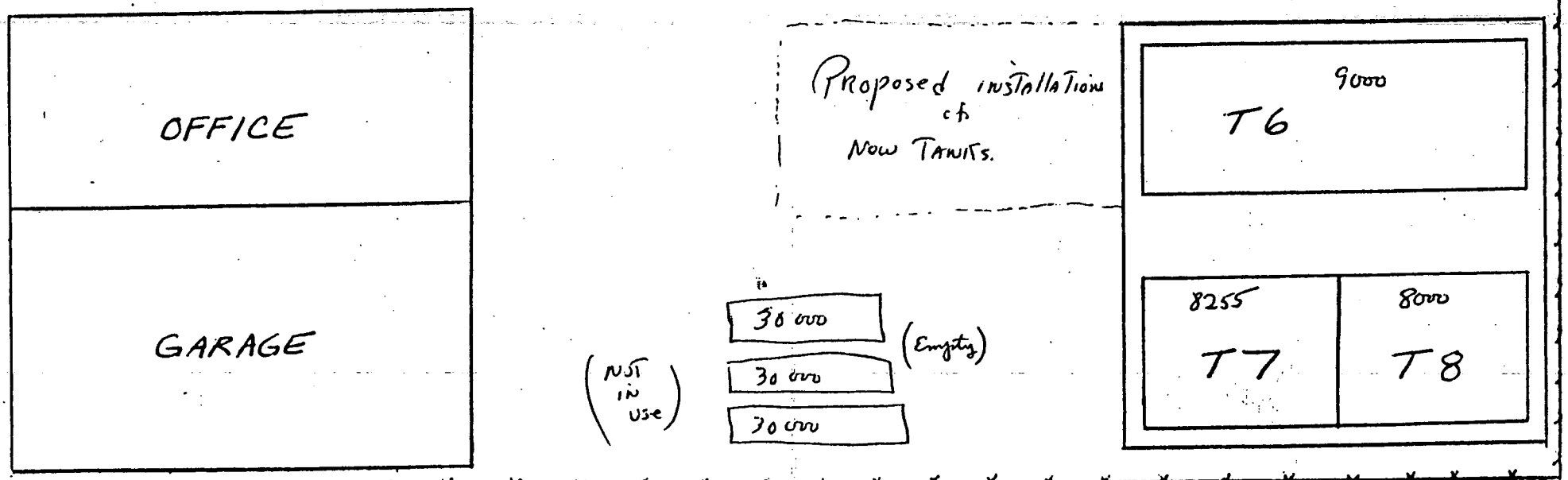
ATTACHMENT 3

ATTACHMENT 37

C.R. WARNER, INC.
DATE: 5-22-85
INSPECTOR: T. Chmiel
M. Jennigan

not to scale





State of New Jersey
Department of Environmental Protection
Division of Waste Management
Southern Region
Vincentown, New Jersey
08088

P 4/16/85

Date: 4/9/85

Time Arrived: 1030
Departed: 1240

Facility Name: C. R. Warner, Inc.
Facility Representative: BARRY WARNER
Phone Number: (609) 769-0086
Position: PRESIDENT
Address: East Lake Road, Woodstown, NJ 08098
Mailing Address: P.O. Box 134, Woodstown, NJ 08098
Inspector: MARY JERNIGAN
Facility Type: Waste Oil Storage & Reclamation
EPA ID#: NJD011811748 Lot: 2-1 Block: 74
Weather Conditions: SNOW / CLOUDS Wind Direction: SW Speed: 0-5 MPH: Temp: ~30

Operating Authorization

Facility is operating under (type of authorization): HWFP

Summary of Inspection (check appropriate statement)

Facility: is in compliance with operating authorization: ✓
is not in compliance with operating authorization: ____
Facility: is in compliance with NJAC Title 7, Chapter 26: ✓
is not in compliance with the following statute provisions(s): ____

Overall housekeeping: Poor ____ Fair ____ Good ✓

Inspection Observations	Yes	No	N/A
1. Does the treatment process (including storage tanks) system show any signs of ruptures, leaks, or corrosion? If yes, explain. ____	____	✓	____
2. Spills. If yes, explain. ____	____	✓	____
3. Odors. If yes, explain. NORMAL PROCESS ODORS	✓	____	____

Container Storage: (7:26-9.4(d)

Drum No. 0 Stack Height ____ Storage Methods ____

Do the containers appear to be in good condition, not in danger of leaking? If no, explain in detail. ____	____	____	✓
Are all containers closed except those in use?	____	____	✓
Are incompatible wastes stored separate from each other?	____	____	✓
Adequate aisle space?	____	____	✓
Are containers stored according to waste characterization?	____	____	✓

ATTACHMENT 38

	Yes	No	N/A	
Is each container marked or labeled with the words "Hazardous Waste" and in compliance with the DOT labeling requirements:				
- generator name	—	—	✓	
- address	—	—	✓	
- UN, NA number	—	—	✓	
- DOT shipping name	—	—	✓	
- EPA ID number	—	—	✓	
- manifest number	—	—	✓	
- accumulation start date	—	—	✓	
Vehicles: (7:26-7.1 and 7.5)				
Valid registration card	✓	—	—	Checked C/H card-093.
Numbers displayed	✓	—	—	Trailer with N.J. lic. T22-84
Properly placarded	✓	—	—	Placarded 1270
Manifests: (7:26-7.4, 7.5 and 7.6)				
Does each manifest have the following information?				
The generators name, mailing address, telephone number, EPA ID number and signature?	✓	—	—	
The transporters name, EPA ID number and signature?	✓	—	—	
SWA transporter registration number?	✓	—	—	
The name, address, EPA ID number of the designated facility and signature?	✓	—	—	
A description of the wastes (DOT)?	✓	—	—	
The total quantity of each hazardous waste?	✓	—	—	
Has the generator received signed copies (from the TSDF) of all the manifests for waste shipped off site more than 35 days ago?	✓	—	—	
Record Keeping: (7:26-9.4 (f and i)				
Are the following being kept properly?				
1. Daily inspection log?	✓	—	—	
2. Daily operating log?	✓	—	—	
3. Waste inventory log?	✓	—	—	

Samples taken: Yes ____ No ✓ Number of samples _____

NJ DEP ID #

Photographs taken: Yes ____ No ✓

39

ATTACHMENT

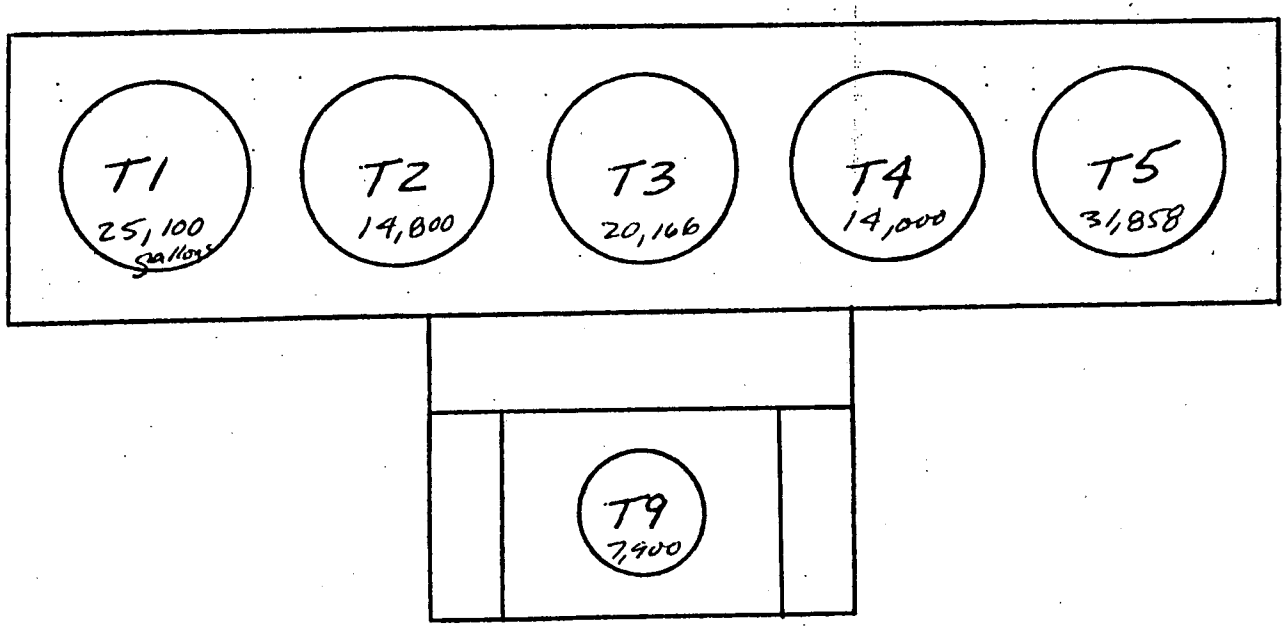
Mary C. Jennings
Signature of Inspector

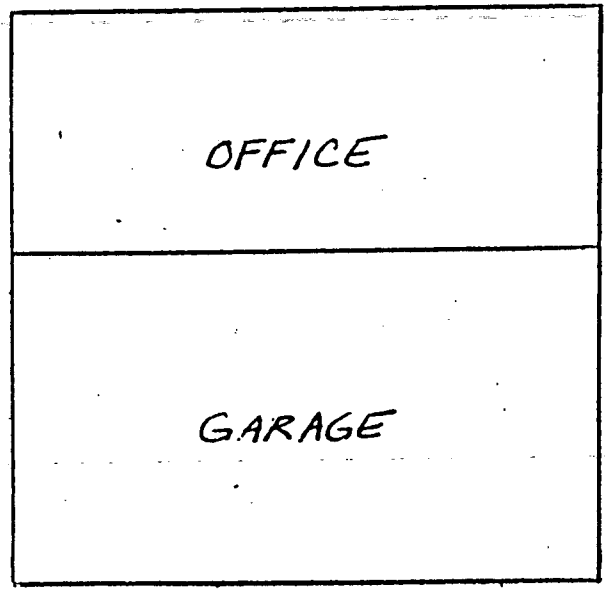
Dolores M. Warner
Signature of Facility Representative

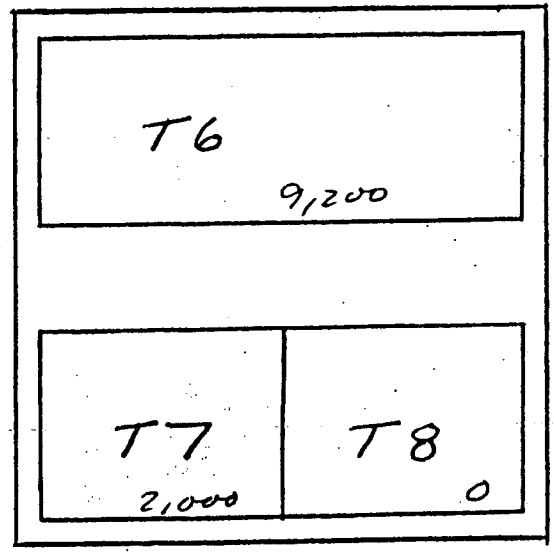
C.R. WARNER, INC.
DATE: 4/9/85
INSPECTOR: M. JERNIGAN

not to scale

ATTACHMENT 40







D.M.U.

State of New J[illegible]y
Department of Environme[illegible]l Protection
Division of Waste Management
Southern Region
Vincentown, New Jersey
08088

P 3/26/85

File # 17-13-01

Date: 3/22/85

Arrived: 1315

Time

Departed: 1500

Facility Name: C. R. Warner, Inc.

Facility Representative: Bud Stocklin / Betty Matczak

Phone Number: (609) 769-0086

Position: Yardman / Office Manager

Address: East Lake Road, Woodstown, NJ 08098

Inspector: Mary Jernigan accompanied by Al Miranda

Mailing Address: P.O. Box 134, Woodstown, NJ 08098

Facility Type: Waste Oil Storage & Reclamation **EPA ID#:** NJD011811174 **Lot:** 2-1 **Block:** 74

Weather Conditions: Overcast **Wind Direction:** NW **Speed:** 5-10 **MPH:** **Temp:** ≤40

Operating Authorization

Facility is operating under (type of authorization): HWFP

Summary of Inspection (check appropriate statement)

Facility: is in compliance with operating authorization: ✓

is not in compliance with operating authorization: ____

Facility: is in compliance with NJAC Title 7, Chapter 26: ✓

is not in compliance with the following statute provisions(s): ____

Overall housekeeping: Poor ____ Fair ✓ Good ____

Inspection Observations

	Yes	No	N/A
1. Does the treatment process (including storage tanks) system show any signs of ruptures, leaks, or corrosion? If yes, explain. ____	____	✓	____
2. Spills. If yes, explain. Small area of spillage on surface of stone (see Map)	✓	____	____
3. Odors. If yes, explain. NORMAL OPERATING ODORS	✓	____	____

Container Storage: (7:26-9.4(d)

Drum No. 4 oily rags, etc. **Stack Height** 1 **Storage Methods** On Concrete

Do the containers appear to be in good condition, not in danger of leaking? If no, explain in detail.	✓	____	____
Are all containers closed except those in use?	✓	____	____
Are incompatible wastes stored separate from each other?	✓	____	____
Adequate aisle space?	✓	____	____
Are containers stored according to waste characterization?	✓	____	____

ATTACHMENT 41

	Yes	No	N/A
Is each container marked or labeled with the words "Hazardous Waste" and in compliance with the DOT labeling requirements:			
- generator name	✓	—	—
- address	✓	—	—
- UN, NA number	✓	—	—
- DOT shipping name	✓	—	—
- EPA ID number	✓	—	—
- manifest number	✓	—	—
- accumulation start date	✓	—	—
Vehicles: (7:26-7.1 and 7.5)			
Valid registration card	—	—	✓
Numbers displayed	—	—	✓
Properly placarded	—	—	✓
Manifests: (7:26-7.4, 7.5 and 7.6)			
Does each manifest have the following information?			
The generators name, mailing address, telephone number, EPA ID number and signature?	✓	—	—
The transporters name, EPA ID number and signature?	✓	—	—
SWA transporter registration number?	✓	—	—
The name, address, EPA ID number of the designated facility and signature?	✓	—	—
A description of the wastes (DOT)?	✓	—	—
The total quantity of each hazardous waste?	✓	—	—
Has the generator received signed copies (from the TSDF) of all the manifests for waste shipped off site more than 35 days ago?	✓	—	—
Record Keeping: (7:26-9.4 (f and i)			
Are the following being kept properly?			
1. Daily inspection log?	✓	—	—
2. Daily operating log?	✓	—	—
3. Waste inventory log?	✓	—	—

Samples taken: Yes ____ No ✓ Number of samples _____

NJ DEP ID #

Photographs taken: Yes ____ No ✓

ATTACHMENT 42

Mary C. Jennings
Signature of Inspector

Betty Watonale
Signature of Facility Representative

FACILITY NAME C.R. [illegible] TYPE OF INSPECTION 3/22/05

EPA ID # NJD001881174 FILE NO. 17-15-01

COMMENTS, OBSERVATIONS, SUMMARY (attach additional sheets if necessary)

See attached (copy of) Manifest #NJA0047741. This load was rejected for low flash point and a solvent odor. Betty Matczak conferred with Dave Brown of Classifications and Manifests regarding the proper paperwork for this situation.

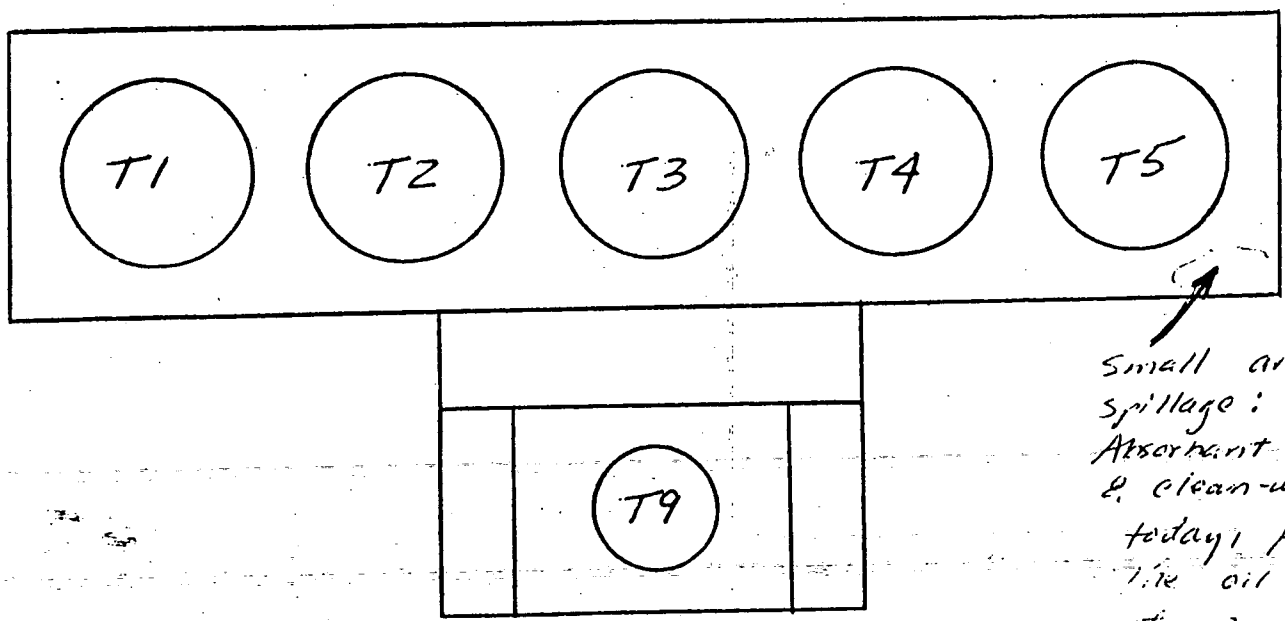
Mary C. Jampa
Signature of Inspector

Betty Matczak
Signature of Facility Representative

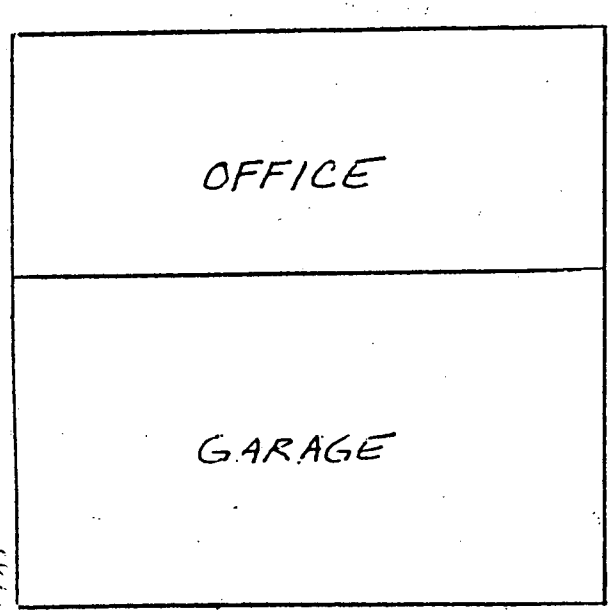
ATTACHMENT 43

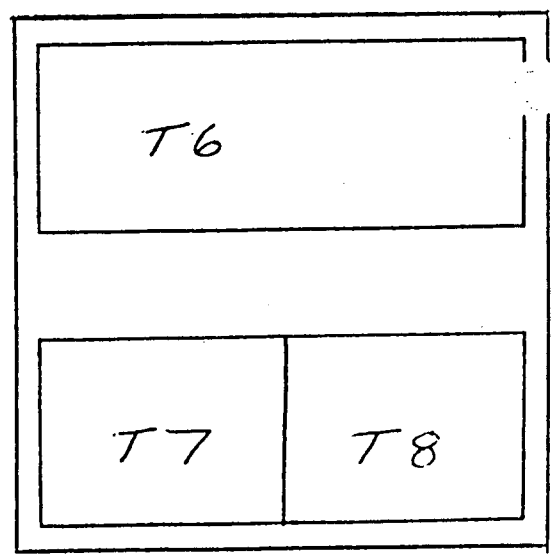
C.R. WARNER, INC.
DATE: 3/22/95
INSPECTOR:
MARY JERNIGAN

not to scale



Small area of surface spillage: approximately 2' x 3'
Absorbant pads were applied & clean-up will be completed today, per Bud Stocklin.
The oil apparently leaked out of a hose.





GATE

ATTACHMENT 44

State of New Jersey
Department of Enviromental Protec.
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2000-0404. Expires 7-3

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. PAD 9 0 0 4 3 3 5 4 0 0 1 7 | Manifest Document No. 2 | 2. Page 1 of 8 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: PROGRESS LIGHTING, G ST & ERIE AVE, PHILA PA 19134

4. Generator's Phone (215) 289-1200

A. State Manifest Document Number **NJA**004774

B. State Gen. ID: Same

5. Transporter 1 Company Name: ABC TANK Co | 6. US EPA ID Number: NJD 9 8 0 5 2 6 4 5 7

C. State Transporter's ID: NJ SWA 58159 AT

D. Transporter's Phone 609-881-6586

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: C.R. DRAPER INC, EAST LAKE RD, WOODSTOWN NJ 08098 | 10. US EPA ID Number: NJD 0 1 1 8 8 1 1 7 4

G. State Facility's ID 1709-B

H. Facility's Phone 609-769-0886

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Oil N.O.S. Combustible U.N. 1270	001	TT	4700	G	X726
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Rejected
Solvent Smell / Flash to Fail

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws and regulations.

Printed/Typed Name: [illegible] MAHONEY | Signature: [illegible] Mahoney | Date Month Day Year: 03 13

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: William [illegible] | Signature: [illegible] | Date Month Day Year: 03 13

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day Year

19. Discrepancy Indication Space
Rejected
Solvent Smell / Flash Low

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Betty Matczak | Signature: Betty Matczak | Date Month Day Year: 03 13

EPA Form 8700-22 (5-84) 1 - TSD MAIL TO TSD'S STATE

ATTACHMENT 45

In Case of an emergency or spill immediately call the State the emergency occurred in and the N.J. Dept. of Environmental Protection. (609) 292-5560 (Day) (609) 292-7172 (Night)

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Southern Field Office

81-187

Date: 08/15/89

Arrived: 0910 hrs.
Time
Departed: 1030 hrs.

Facility Name: C. R. Warner, Inc.
Phone Number: 609-769-1188
Address: East Lake Road, Woodstown, NJ 08098
Mailing Address: PO Box 134, Woodstown, NJ 08098

Facility Representative: Betty Matczak
Position: Sect./office Manager.
Inspector: Wayne Mounts

Facility Type: Waste Oil Reclamation EPA ID#: NJD011881174 Lot: 2-1 Block: 74
Weather Conditions: OVERCAST, MILD Wind Direction: Speed: 0-5 MPH: Yes Temp: ~75°F

Operating Authorization

Facility is operating under (type of authorization): Permit Number 1709B (exp. 11/10/88)
NEW PERMIT # 1709B1HP02

Summary of Inspection (check appropriate statement)

Facility: is in compliance with operating authorization: x
is not in compliance with operating authorization: _____
Facility: is in compliance with NJAC Title 7, Chapter 26: x
is not in compliance with the following statute provisions(s): _____

Overall housekeeping: Poor ____ Fair ____ Good x

Inspection Observations	Yes	No	N/A
1. Does the treatment process (including storage tanks) system show any signs of ruptures, leaks, or corrosion? If yes, explain.	x	—	—
2. Spills. If yes, explain.	—	x	—
3. Odors. If yes, explain.	—	x	—
4. Are containment areas free of stain?	x	—	—

Container Storage: (7:26-9.4(d) and 9.3(a)3 - Generated waste only

Drum No. ONE Stack Height ONE Storage Methods drum/55

Do the containers appear to be in good condition, not in danger of leaking? If no, explain in detail.	x	—	—
Is each container marked with the accumulation start date?	x	—	—

ATTACHMENT 4

each container marked or labeled with the words "Hazardous Waste" and compliance with the DOT labeling requirements:

- generator name	X	—	—
- address	X	—	—
- UN, NA number	X	—	—
- DOT shipping name	X	—	—
- EPA ID number	X	—	—
- manifest number	X	—	—
- accumulation start date	X	—	—

Vehicles: (7:26-7.1 and 7.5)

Valid registration card	X	—	—
Numbers displayed	X	—	—
Properly placarded	X	—	—

Manifests: (7:26-7.4, 7.5 and 7.6) Total=36 ; DATES: 08/03/89 to 08/14/89 : 188 720 GAL.

Does each manifest have the following information?

The generators name, mailing address, telephone number, EPA ID number and signature?	X	—	—
The transporters name, EPA ID number and signature?	X	—	—
SWA transporter registration number?	X	—	—
The name, address, EPA ID number of the designated facility and signature?	X	—	—
A description of the wastes (DOT)?	X	—	—
The total quantity of each hazardous waste?	X	—	—
Has the generator received signed copies (from the TSDF) of all the manifests for waste shipped off site more than 35 days ago?	X	—	—

Record Keeping: (7:26-9.4 (f and i)

Are the following being kept properly?

1. Daily inspection log?	X	—	—
2. Daily operating log?	X	—	—
3. Waste inventory log?	X	—	—
4. LAB Log for BStW?	X	—	—

Samples taken: Yes ___ No X Number of samples _____

NJ DEP ID #

Photographs taken: Yes ___ No X

Wayne Macys
Signature of Inspector

Betty Matczak
Signature of Facility Representative

ATTACHMENT 47

FACILITY NAME

DATE OF INSPECTION 08/15/89

EPA ID #

FILE NO.

COMMENTS, OBSERVATIONS, SUMMARY

An inspection was performed on this date. No outstanding violations were cited. One 55 gallon drum was filled and labeled accordingly. Three 55 gallon drums were contained in tank area T7 and T8 — they are being used for oil waste storage and, when filled, will be disposed of.

Bud gave me the walk through today. I inspected all log logs and everything appeared to be in order. All manifests were correct.

Wayne Vincent
Signature of Inspector

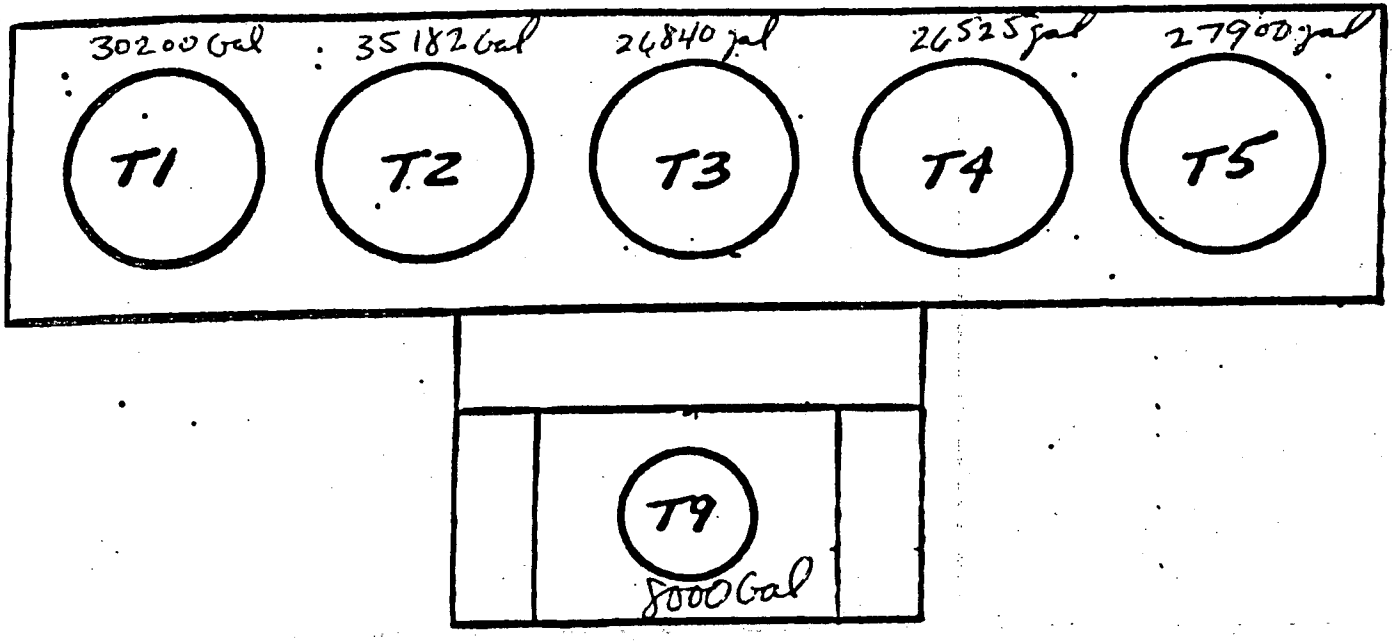
B. Matejka
Signature of Facility Representative

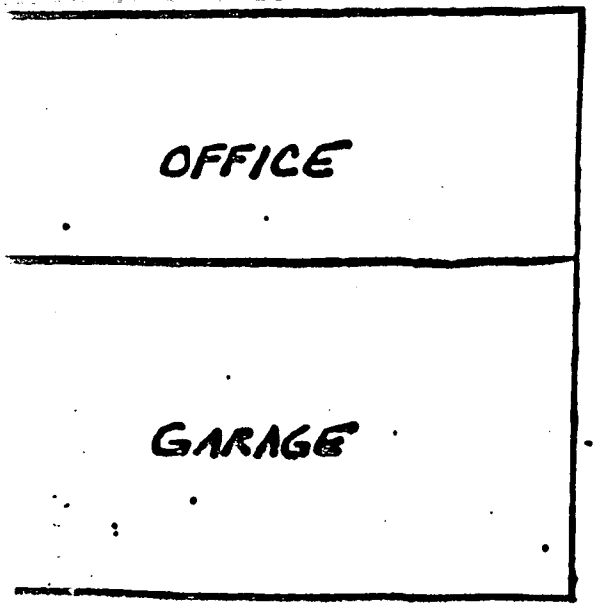
ATTACHMENT 48

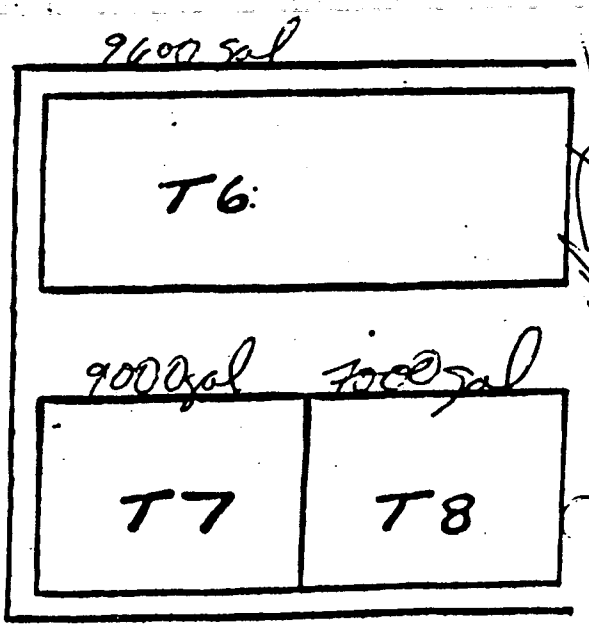
ATTACHMENT 4

C.R. WARNER, INC.
DATE: 08-15-89
INSPECTOR: W. Mount

not to scale







(TO/7/24/89

File #17-15-01

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Southern Field Office

Date: 7-20-89

Arrived: 1135
Time
Departed: 1310

Facility Name: C. R. Warner, Inc.
Phone Number: 609-769-1188
Address: East Lake Road, Woodstown, NJ 08098
Mailing Address: PO Box 134, Woodstown, NJ 08098

Facility Representative: Betty Matczak
Position: Office Manager
Inspector: Bauerlein

Facility Type: Waste Oil Reclamation EPA ID#: NJD011881174 Lot: 2-1 Block: 74

Weather Conditions: cloudy Wind Direction: S Speed: 0-5 mph Temp: 75

Operating Authorization

Facility is operating under (type of authorization): Permit Number 1709B (exp. 11/10/88)
new permit no 1709B, #PO2

Summary of Inspection (check appropriate statement)

Facility: is in compliance with operating authorization: ✓
is not in compliance with operating authorization: ____

Facility: is in compliance with NJAC Title 7, Chapter 26: ✓
is not in compliance with the following statute provisions(s): ____

Overall housekeeping: Poor ____ Fair ____ Good ✓

Inspection Observations	Yes	No	N/A
1. Does the treatment process (including storage tanks) system show any signs of ruptures, leaks, or corrosion? If yes, explain. ____	___	✓	___
2. Spills. If yes, explain. ____	___	✓	___
3. Odors. If yes, explain. ____	___	✓	___
4. Are containment areas free of stain?	___	✓	___

Container Storage: (7:26-9.4(d) and 9.3(a)3 - Generated waste only

Drum No. 0 Stack Height — Storage Methods —

Do the containers appear to be in good condition, not in danger of leaking? If no, explain in detail. 4 drums just shipped out on 7/17 none accumulated at this inspection	___	___	N/A
Is each container marked with the accumulation start date?	___	___	✓

ATTACHMENT 5

each container marked or labeled with the words "Hazardous Waste" and compliance with the DOT labeling requirements:

N/A

- generator name
- address
- UN, NA number
- DOT shipping name
- EPA ID number
- manifest number
- accumulation start date

Vehicles: (7:26-7.1 and 7.5) Case Pintard

Valid registration card ✓
Numbers displayed NJDEP 6747 ✓
Properly placarded 1993 ✓

Manifests: (7:26-7.4, 7.5 and 7.6)

Does each manifest have the following information?

The generators name, mailing address, telephone number, EPA ID number and signature? ✓

The transporters name, EPA ID number and signature? ✓

SWA transporter registration number? ✓

The name, address, EPA ID number of the designated facility and signature? ✓

A description of the wastes (DOT)? ✓

The total quantity of each hazardous waste? ✓

Has the generator received signed copies (from the TSDF) of all the manifests for waste shipped off site more than 35 days ago? ✓

Record Keeping: (7:26-9.4 (f and i)

Are the following being kept properly?

1. Daily inspection log? ✓
2. Daily operating log? ✓
3. Waste inventory log? ✓

Samples taken: Yes ___ No ✓ Number of samples ___

NJ DEP ID #

Photographs taken: Yes ___ No ✓

Peter Wilson
Signature of Inspector

Betty Matonak
Signature of Facility Representative

Pg 2

ATTACHMENT 51

FACILITY NAME CR Warner

DA__ OF INSPECTION 7/20/89

EPA ID #

FILE NO. 17-15-01

COMMENTS, OBSERVATIONS, SUMMARY

1) Received 38 manifests 7/12-19/89
37 manifests incoming, 1 outgoing 4 drums X725 to Casie

2) waste tracking - into lab log in / analysis
Yerger (065 7554 NOA) X721 7/8/89 BS+W = 1% Fp > 140°F
Casie (NOA 0668009) X726 7/17/89 BS+W = 20% Fp > 140°F
Shelton (NOA 065 0338) X722 7/19/89 BS+W = 8% Fp > 140°F

3- Underground fuel oil (#2) tank (1000 gal) being filled - no spills/stain

4- PCB analysis by NET Mid Atlantic Inc. 7/12/89 shows composite in product contains < 5 ppm PCB components
609 (848) -3939 NET copy attached

5. Chloride analysis on 6/1/89. taken at random/qtrly.
% Cl = .04% on outgoing oil copy attached

Ben Wilkins
Signature of Inspector

Betty Malazak
Signature of Facility Representative

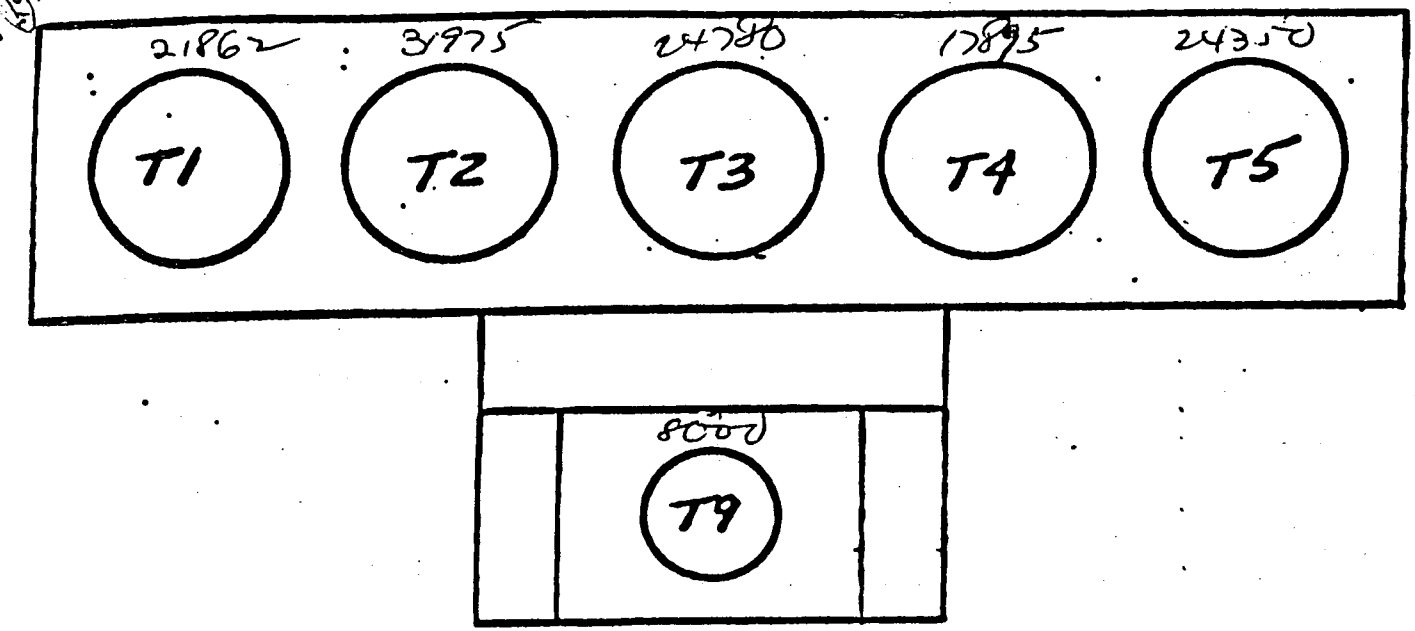
Pg 3

ATTACHMENT 52

C.R. WARNER, INC.
DATE:
INSPECTOR:

not to scale.

ATTACHMENT 53



no drum waste on site

OFFICE

GARAGE

T6: 8600

8000	7000
T7	T8

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Mid-Atlantic, Inc.
1501 Grandview Avenue
P.O. Box 248
Thorofare, NJ 08086
Tel: (609) 848-3939
Fax: (609) 848-9195

ANALYTICAL REPORT

REPORT #: 89-1463
DATE: 06/01/89

CLIENT: CR WARNER, INC.
East Lake Road
P.O. Box 134
Woodstown, New Jersey 08098

SUBJECT: One (1) sample submitted by the client on May 15, 1989 and identified as: (1) RECRA.

AUTHORIZATION: Standing Order

PURPOSE: Chemical Analysis

PROCEDURE: Samples were analyzed in accordance with procedures presented in the following:

1. % Chloride - ASTM D-808
2. "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods", 2nd Ed., 1984 U.S. Environmental Protection Agency (SW-846)
3. % Sulfur - ASTM D-129
4. % Water - ASTM D-445
5. % Ash - ASTM D-482

NET Mid-Atlantic, Inc.

Donna Golden

kat

CERTIFICATIONS: NJ - 08153 PA - 68-212 NY - 10867 DELAWARE

ATTACHMENT 54

NET MID-ATLANTIC, INC.
Report of Results

PCB ANALYSIS

Client: CR WARNER, INC.
Sample ID: CS000398-398
% Moisture: 0.00

Report #: 89-2009
NET-Mid ID: 26086

	ug/kg		ug/kg
Aroclor 1016	5000 U	Aroclor 1221	5000 U
Aroclor 1232	5000 U	Aroclor 1242	5000 U
Aroclor 1248	5000 U	Aroclor 1254	5000 U
Aroclor 1260	5000 U		

U Indicates compound was analyzed for but not detected (eg. 10U), based on necessary concentration/dilution. The number is the minimum attainable detection limit for the sample.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

J Indicates an estimated value. This flag is used when the data indicates the presence of a compound that meets identification criteria or the result is less than the specified detection limit. (e.g. If the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3 J.

ATTACHMENT 55

ATTACHMENT G

ATTACHMENT G

AIR POLLUTION CONTROL STATUS

STACK NUMBER	CERTIFICATE NUMBER	EXPIRATION DATE
1	63572	8/12/94
2	63573	8/12/94
3	63574	8/12/94
4	63575	8/12/94
5	63576	8/12/94
6	63577	8/12/94
7	63578	8/12/94
8	69367	9/25/94

The last recorded violation against C.R. Warner was in 1982 for unregistered equipment. Currently, all required equipment at the Woodstown facility is registered with the NJDEP.

ATTACHMENT 17

ATTACHMENT H

GEOLOGY AND GROUND-WATER RESOURCES OF SALEM COUNTY, NEW JERSEY

By

JACK C. ROSENAU

SOLOMON M. LANG

GEORGE S. HILTON

JAMES G. ROONEY

U. S. Geological Survey

SPECIAL REPORT NO. 33

1969

Prepared by the U. S. Geological Survey

in cooperation with the

State of New Jersey

ATTACHMENT H1

GEOLOGIC FORMATIONS AND THEIR WATER-BEARING CHARACTERISTICS

Salem County is underlain by a southeastward-thickening wedge of generally unconsolidated deposits of Quaternary, Teritary, and Cretaceous age. These deposits are composed of alternating clay, silt, sand, and gravel and are underlain by crystalline metamorphic and igneous rocks of early Paleozoic or Precambrian age.

The Pre-Quaternary deposits strike generally in a northeast-southwest direction and dip gently to the southeast. Pre-Quaternary formations crop out in a series of bands that parallel the Delaware River; the oldest formation occurring along the Delaware River and younger formations cropping out progressively to the southeast (figures 9 and 10).

The thickness of the Coastal-Plain deposits in Salem County as determined by geophysical methods (Wollard, 1941, p. 72) and from borings is 300 feet at Penns Grove, 1,376 feet at Salem, 1,670 feet at Pittsgrove, 2,140 at Elmer, and 2,400 feet at Norma.

The sequence of the Coastal-Plain formations in Salem County and the thickness, lithology, and hydrologic characteristics of each formation are given in table 3. The important aquifers in Salem County occur in the Potomac Group and Raritan and Magothy Formations, Wenonah Formation and Mount Laurel Sand, Vincentown Formation, Cohansey Sand, and Cape May Formation. Separating these aquifers are layers of clayey materials which have lower permeabilities than the aquifer materials. These clay beds are confining or semiconfining units and are referred to as aquicludes. Because some water can flow out of or into an aquifer through these clay layers, they sometimes are referred to as being "leaky."

LATE PRECAMBRIAN(?) ROCKS

Wissahickon Formation

Geology

The Wissahickon Formation is composed of metamorphic rocks—schist and gneiss. These rocks are generally characterized by a preponderance of mica, with quartz, feldspar, garnet, and chlorite; and they are typically medium- to coarsely crystalline, banded in texture and green and gray in color. Joints and other fractures are characteristic structural features of the Wissahickon Formation. It is overlain unconformably by the Potomac Group and Raritan Formation.

The Wissahickon Formation crops out in the vicinity of Wilmington, Delaware, but is overlain by Cretaceous and Quaternary deposits in Salem

ATTACHMENT #2

accounted for nearly one-third the total amount of ground wate
in the county. It will undoubtedly increase in the future and, eve
it may become the largest single type of ground-water use in the c

ATTACHMENT #3

Quinton and supplying water for the city of Salem, is the only p supply well known to tap the Vincentown aquifer. The Vince water-bearing zone is capable of supplying considerably more water is now being pumped and is an important source for future ground- development. Data for 45 wells in the Vincentown water-bearing are given in table 6. Most of the wells are 4 inches in diamete only a few have screens. Specific capacities range from 0.5 to 8.3 average 4.0 gpm/ft of drawdown.

Water-table conditions exist in the outcrop area. Here, local rec occurs and discharge is to local streams such as Oldmans Creek Alloway Creek. Movement of water in the artesian aquifer dov from the outcrop is from Gloucester County southwestward thr Salem County. Although the permeabilities of the overlying and u lying aquicludes are low, leakage can occur into or out of the Vince Formation through these materials where there is a vertical head gra

Quality of water.—The chemical quality of water in the Vince aquifer may limit its use. The water is hard and has a moderate to iron content. Hardness ranges from 134 to 270 ppm and the av hardness of 13 samples from the aquifer is 208 ppm. Total iron co ranges from 0.15 to 10 ppm and the median total iron content o samples is 2.1 ppm.

The occurrence of salt water in the Vincentown Formation i Salem area is indicated by chloride concentrations in four wells (5 and 6—wells 142A, 142B, 142C, and 144) ranging from 10 to ppm in 1964-66.

Eocene Series

Manasquan Formation

Geology.—The Manasquan Formation is not known to crop o Salem County. Figure 10 depicts the formation in subsurface wh has a maximum thickness of 150 feet. It is a sandy glauconitic clay appears to have primarily a grayish or dusky-green color. The glauc constitutes from 50 to 80 percent of the sand and the remaining centage consists of quartz grains, pyrite, mica, and a few foramin

The Manasquan is described by well drillers as: marl or clay, clay pepper or shells, clay or sandy marl, and marl with shells and Colors used by drillers to describe the formation are: black, gray, g chartreuse, and white.

The Manasquan Formation overlies conformably the Vincentown mation and underlies unconformably the Kirkwood Formation but

ATTACHMENT #4

difficult to differentiate from these formations in most drillers' logs. The formation dips southeastward, from 22 to 32 feet per mile. Weller (1907, p. 173-175) indicates that Manasquan fossils are not abundant but represent a modified recurrence of the Hornerstown suite.

Hydrology.—Well 164, which yields 10 gpm, is the only well known to tap the Manasquan Formation in Salem County. Although a few other wells may be taking some water from the Manasquan, they primarily tap the Vincentown Formation. The Manasquan is clayey and impermeable enough to be considered a confining bed. Although it has a few thin sandy sections that may contribute minor quantities of water to wells, it is probably more accurately classified as a leaky aquiclude.

Miocene Series

Kirkwood Formation

Geology.—Thick beds of dark-colored clays, some silt, and layers of fine-grained micaceous quartz sand are typical of the Kirkwood Formation in Salem County. In the Woodstown quadrangle (Minard, 1965) the lower part of the formation is mostly thick-bedded, very fine- to fine-grained sand and is typically micaceous. Beds of pebbly coarse-grained sand containing abundant glauconite occur in the basal 2 to 4 feet. The upper part of the formation is interbedded poorly sorted silt and clay (Minard, 1965).

Drillers' logs indicate that the Kirkwood Formation is primarily a clay that contains occasional fine-grained sand or shells. Colors described are gray, brownish yellow, black, green, brown, and orange. It is also described as a fine-grained yellow sand or medium-grained sand with shells. The log of 160 feet of samples from well 176 (table 7) indicates that the formation is highly variable, consisting of about 60 percent clay or silt and about 40 percent medium-grained quartz sand.

The Kirkwood unconformably overlies the Manasquan and Vincentown Formations and dips southeastward at approximately 18 feet per mile. Its outcrop area is approximately 100 square miles. (See figures 9 and 10). Figure 10 shows the stratigraphic position of the Kirkwood and indicates that it has a maximum thickness of about 275 feet in Salem County. This estimate of thickness is questionable, however, because the Kirkwood is difficult to separate from the overlying and underlying formations and because of the sparseness of wells for which geologic or drillers' logs are available.

Exposures of the Kirkwood Formation may be seen at numerous locations east of Woodstown: a light buff-colored, silty, and micaceous clay crops out on the east side of the Woodstown-Mullica Hill Road (State

ATTACHMENT #5

Highway 45) at N. J. Grid 30.34.1.9.3; and a buff-colored, silty, a micaceous clay containing fine quartz grains has been collected from roadside cut on the west side of the Eldridge Hill-Harrisonville Ro and about 300 feet south of Oldmans Creek at N. J. Grid 30.34.2.5.7.

Hydrology.—The Kirkwood Formation in Salem County has be developed for domestic and farm supplies. Reported yields to wells ran from 5 to 175 gpm and the average is 50 gpm.

The Kirkwood in Salem County is recharged by precipitation in outcrop area and in areas where it is overlain by permeable sections the Cohansey Sand or materials of Quaternary age. Much of the wat that recharges the aquifer in and near the outcrop is discharged local to nearby streams.

Few data on the chemical quality of Kirkwood water are availab Iron concentrations range from 0.2 to 6.4 ppm but are generally less th 1.5 ppm. Hardness is known to be as high as 160 ppm. In general, t available data suggest that the water may be used for most purposes wi little or no treatment.

Miocene(?) and Pliocene(?) Series

Cohansey Sand

Geology.—The Cohansey Sand underlies approximately 25 percent Salem County. It is a white or light-colored, medium- to coarse-grain stratified quartzose sand containing occasional lenses of gravel. It co tains locally, clay laminae and lenses of light-colored clay that may as much as 25 feet thick. In the Woodstown quadrangle (Minar 1965) "quartz and feldspar are the principal sand constituents: sm amounts of muscovite are present in the basal part of the formation. Ro fragments in the gravel are mainly quartz, quartzite, and sandston chert is subordinate."

Individual layers or beds within the formation generally dip to t southeast at about 10 feet per mile but the dip ranges from 6 to 16 fe per mile. The formation ranges in thickness from less than 1 foot ne the western edge of its outcrop area to a known 82 feet and a possib 200 feet in the extreme eastern part of the county.

The Cohansey Sand is the uppermost Tertiary formation in the Ne Jersey Coastal Plain. It overlies the Kirkwood Formation unconformabl Within Salem County, it is overlain unconformably by a veneer of depos of Pleistocene age. The Cohansey is generally considered to be a riv or estuarine-type deposit, although some of its materials may have be deposited under near-shore or marine conditions (Barksdale and othe 1958).

ATTACHMENT H6

Hydrology.—The Cohansey Sand is generally a water-table unit although it may contain more than one distinct water-bearing bed and local thin semiconfining beds. It is recharged by precipitation on its outcrop area.

Because it is composed predominately of highly permeable materials, the Cohansey is able to transmit large quantities of water. An aquifer test made at the Paulaitis farm (31.41.5.3.9) 3¼ miles southeast of Elmer, indicated an average coefficient of transmissibility of about 30,000 gallons per day per foot, a permeability of 1,200 gpd (gallons per day) per square foot, and a coefficient of storage of 3×10^{-4}. Well logs and hydrologic data from the test indicate that a clay that is about 10 feet thick and of small areal extent acts as a partially confining layer to the aquifer. Vertical permeability of the confining layer is approximately 0.2 gallons per day per square foot. As water from the overlying shallow water table was able to percolate through and around the confining bed in response to head differentials established by pumping, the Cohansey Sand may be considered a single hydrologic unit, regardless of numerous and distinct water-bearing beds.

The Cohansey Sand has an estimated average specific yield of about 21 percent (Rhodehamel, 1966, p. 44). Thus, where sufficiently thick, the Cohansey Sand can store and release substantial quantities of water.

From the standpoint of total availability of water, the Cohansey Sand ranks behind the aquifer of the Wenonah Formation and Mount Laurel Sand. Where sufficiently thick, it compares favorably in ability to yield water with aquifers of the Potomac Group and Raritan and Magothy Formations. Because the water demand in areas underlain by the Cohansey has been small, the pumpage from this aquifer does not reflect its yielding ability: the Cohansey Sand is an important source of future ground-water development.

Quality of water.—Water from the Cohansey Sand is generally slightly mineralized and soft. Dissolved-solids content of two samples are 18 and 105 ppm. Hardness of 12 samples ranges from 3 to 102 ppm and averages 47 ppm. Iron and dissolved carbon dioxide are commonly present in objectionable quantities. Iron concentrations of 12 samples range from 0.07 to 1.2 ppm and average 0.3 ppm. High concentrations of nitrate, probably resulting from leaching of fertilizers or animal excrement, are occasionally found in water samples collected from agricultural areas. Nitrate concentrations of two samples are 1.3 and 44 ppm. The removal of iron and the adjustment of pH may be required before Cohansey waters can be used in certain industrial processes. The results of the analyses of water from the Cohansey Sand are presented in table 5.

ATTACHMENT #7

QUATERNARY SYSTEM

Pleistocene Series

The Pleistocene Series comprising the Bridgeton, Pensauken, and Ca May Formations have similar geohydrologic characteristics. These fo mations, shown on figure 21, mantle the older sediments and are know to be as much as 96 feet thick in the southeastern part of the count Their chief hydrologic function, where they are not thick enough function as an aquifer, is to absorb precipitation and transmit it to unde lying formations. In the Woodstown quadrangle, Minard (1965) divid the Pleistocene deposits into a gravelly alluvium and a glauconitic alluviu This subdivision has not been followed in this report.

Bridgeton Formation

The Bridgeton Formation crops out in an area of about 60 squa miles in the eastern half of Salem County (fig. 21). The exposures ar irregular and are at altitudes ranging from 100 to 160 feet above se level. The formation is as much as 50 feet thick in the county.

The Bridgeton Formation is composed of fine- to very coarse-graine quartzose sand and gravel that may be iron stained and cemented. sieve analysis of a sample collected at a location 2 miles notheast Mullica Hill in Gloucester County, shows more than 95 percent mediu to very coarse-grained sand. The sands are white, yellow, and brow generally fairly well sorted, subangular, and occasionally crossbedded.

The Bridgeton Formation yields from 10 to 50 gpm of water to wel for domestic use and stock supplies. In the eastern part of the count it is probably hydraulically connected to the underlying Cohansey San and, locally, to the Kirkwood Formation.

Pensauken Formation

The Pensauken Formation crops out in irregular and isolated patche in central Salem County. It underlies a total area of about 5 square mile in Salem County (fig. 21) and occurs at altitudes of 40 to 120 feet abov sea level. The Pensauken is as much as 30 feet thick in the county an consists of medium- to coarse-grained quartzose sand, some gravel, an clay. The sand grains are usually poorly sorted and dirty; they are sub angular and may be yellow, red, or brown in color. In some areas, th sand and gravel are iron stained and cemented. Because of similar lith ologies, the Pensauken may be difficult to distinguish from the olde Bridgeton or the younger Cape May. However, the presence of glauconite and the occurrence of iron stained and cemented sands are indicative o the Pensauken.

ATTACHMENT H8.

The hydrology of the Pensauken Formation is similar to that of the Bridgeton. Well yield is from 10 to 25 gpm of water for domestic use.

Cape May Formation

The Cape May Formation crops out adjacent to the Delaware River and its tributary streams (fig. 21) and underlies about 85 square miles of Salem County. It is found at altitudes as high as 90 feet but usually not higher than 70 feet above sea level. The formation is as much as 150 feet thick in the southwest and about 30 feet thick along streams in the interior of the county.

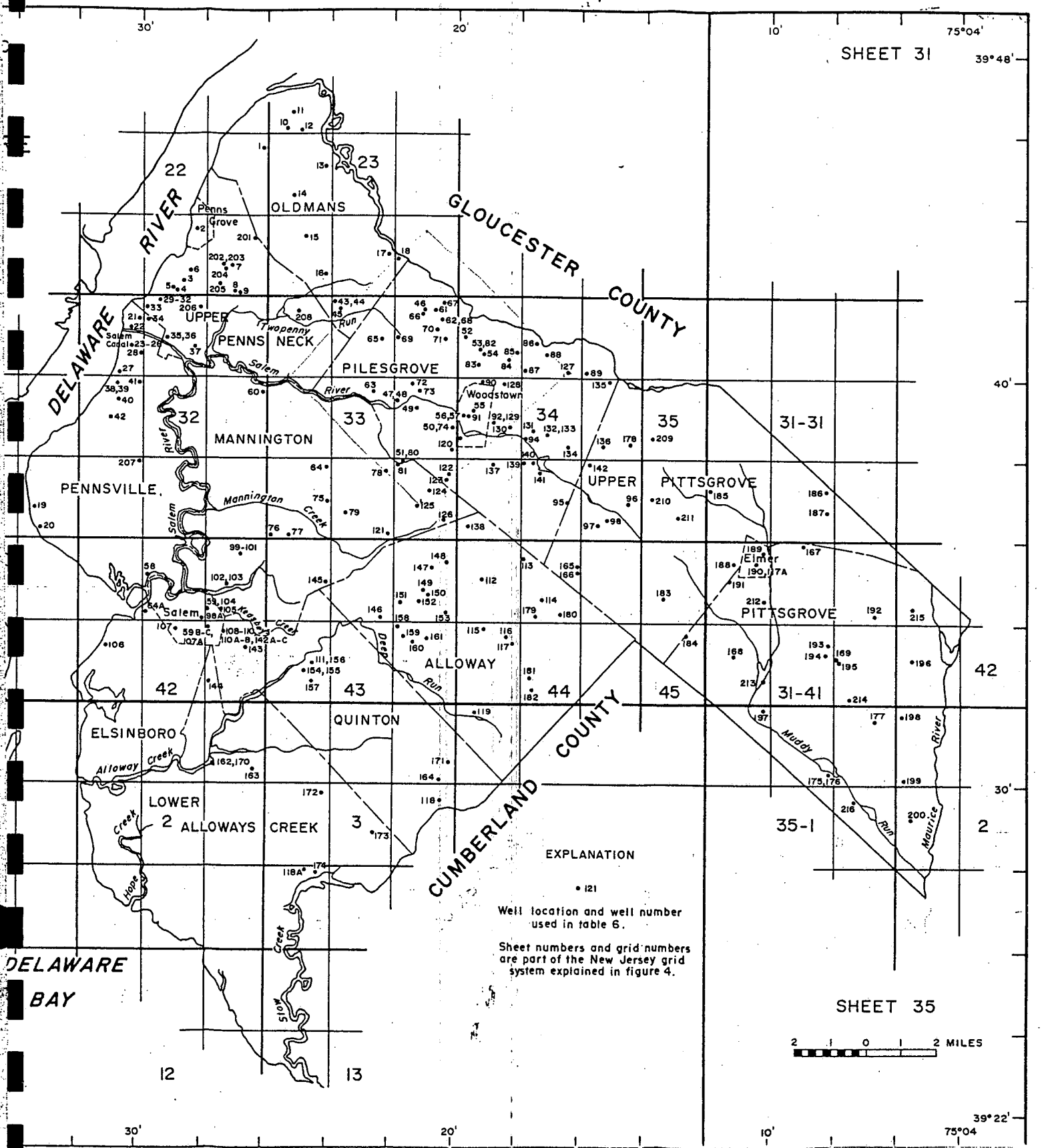
In some areas, it may be difficult to distinguish the Cape May Formation from the Pensauken Formation because of their similar lithologies. The Cape May Formation is composed of medium- to coarse-grained quartzose sand with abundant gravel and minor amounts of clay. The sand and gravel are usually yellow or brown, but sometimes gray in color. The clays are yellow, brown, gray, and black. The materials are usually poorly sorted and the sand grains are subangular. The Cape May sediments are not cemented or iron stained, as are the older Pleistocene deposits, but do contain some glauconite and may be ilmenitic (Owens, Minard, Wiesnet, and Markewicz, 1960).

The Cape May Formation is an important aquifer in the Penns Grove-Deepwater area where it yields up to 1,500 gpm of water to Ranney (horizontal) collector wells. The outcrop area is flat and recharge from precipitation infiltrates easily to underlying older formations. The Cape May probably has a higher permeability than either the Bridgeton or the Pensauken Formations.

Salt water may intrude the Cape May Formation along the Delaware River and along tidal reaches of its tributary streams if the fresh-water head in the aquifer is lowered sufficiently near places where the Delaware River and the Cape May Formation are hydraulically connected. Because water from the Cape May Formation recharges the older formations, water of poor quality entering the Cape May Formation could harm the underlying productive aquifers.

Holocene Series

Alluvium of Holocene age in Salem County is a mixture of silt, clay, organic material, sand, and gravel deposited in tidal flats and along the stream channels (figure 21). Most of this material is fine silt and clay having low permeability. Along the Delaware River where the alluvium is 10 to 40 or more feet thick, it retards the movement of brackish water



ATTACHMENT H10

ATTACHMENT I

239	Wilmington South	Sturgeon, shortnose
		Shad, American
		Hawk, Cooper's
		Eagle, bald
		Falcon, peregrine
		Owl, barred
241	Penns Grove	Sturgeon, shortnose
		Shad, American
		Eagle, bald
		Bobolink
		Sparrow, Savannah
		Sparrow, vesper
243	Woodstown	Turtle, bog
		Eagle, bald
		Sandpiper, upland
		Bobolink
		Sparrow, Savannah
		Sparrow, grasshopper
		Sparrow, vesper
245	Pitman West	Salamander, eastern tiger
		Turtle, bog
		Sandpiper, upland
		Sparrow, vesper
247	Pitman East	Heron, great blue
249	Williamstown	Treefrog, pine barrens
		Salamander, eastern tiger
		Snake, northern pine
251	Hammonton	Treefrog, pine barrens
		Snake, corn
		Snake, northern pine
		Turtle, bog
253	Atsion	Treefrog, pine barrens
		Salamander, eastern tiger
		Snake, northern pine
		Tern, least
		Woodpecker, red-headed
255	Jenkins	Treefrog, pine barrens
		Snake, northern pine
		Turtle, bog
		Woodpecker, red-headed
257	Oswego Lake	Treefrog, pine barrens
		Rattlesnake, timber
		Snake, northern pine
		Turtle, bog
259	West Creek	Treefrog, pine barrens
		Snake, northern pine
		Rail, black

ATTACHMENT 1

Common Name: Sandpiper, upland
Scientific Name: Batramia longicauda

NJ.HABITAT

Agricultural

Old field

LAND.USE

Cropland and Pasture

Agricultural Land

Other Agricultural Land

Rangeland

Herbaceous Rangeland

Mixed Rangeland

COMMENTS ON HABITAT ASSOCIATIONS

In general, breeds in pastures, dry upland fields, hay meadows, cultivated fields and other extensive flat open country *528,676,432*. It sometimes occurs in fields around airports and on golf courses *528*. Upland Sandpipers are seldom found near water, but occasionally in moist meadows *432*. Clark *NJDFGW2* noted that Upland Sandpipers have nested i scrub-shrub areas adjacent to grassland areas at the FAA Tech Center in Ne Jersey.

PERCENTAGE OF UPLAND SANDPIPER NESTS IN SPECIFIC LAND USE TYPES***

(adapted from White.*02*)

Pasture	38.2%
grazed	12.1
ungrazed	2.2
burned	21.0
unburned	2.9
Prairie-grassland	28.0
Idle Land (suburban fringe,stubble fields and highway right-of ways)	16.0
Hayfields	7.0
Clearings in woody growth	5.4
Tilled lands,growing grain	3.1
Airfields,shooting ranges	1.8
Marsh	0.5

ATTACHMENT 2

***based on 553 nest sightings from Cornell nest records and the literatur

In White's Wisconsin study *02*, census routes with high Upland Sandpiper counts had high acreage in oats, hay and pasture, little area in forest, lacked rugged topography, had fence posts for song perches, and ha low vegetation edge ratings (meaning the fields were large and unbroken). White noted that alfalfa, in its initial year, resembles shortgrass prairie and is favored by Upland Sandpipers.

At a North Dakota study site, 85% of nests were concealed by cover consisting of >50% grass, 12% by forbs and 3% by brush. Most nests were found in the following plant genera: Poa (48%), Stipa, Bromus, Agropyron, Medicago, Helianthus, and Symphoricarpos. Few nests were found i annually tilled cropland. Height of vegetative cover was also important i North Dakota; data there indicated that Upland Sandpipers prefer to nest i cover 15.6-30.8 cm tall and avoid cover >61.5 cm tall. These measurements were obtained when the nest was found; height at the time of nest initiatic would be less. *5295*

A two year study characterizing the habitat of the Upland Sandpiper *45,47* in New Jersey found that the birds chose sites surrounded by (within 1 km) open habitat and at those sites established use areas in the most open potions. Open land averaged 76.1% of the area within 1 km of the use area boundaries in 1983 and 66.7% in 1984. One site (Orchard Road, Linvale), however, had unbroken forest on one side which resulted in 43.4% of the area within 1 km being forested, indicating that forest adjacent to a site may not be a deterrent to use of a site. Pastures and hayfields associated with livestock were found on study sites more often than would b expected based on their proportionate frequency in New Jersey agriculture and received the most concentrated use by Upland Sanpipers, indicating that these agricultural uses may hold a high value to breeding Upland Sandpipers

For hatching success rates in various habitats and for more informatic on habitat, see C.MANAGEMENT.

ATTACHMENT 3

Common Name: Bobolink
Scientific Name: Dolichonyx oryzivorus

NJ.HABITAT

Agricultural

Old field

LAND.USE

Agricultural Land

Cropland and Pasture

Rangeland

Herbaceous Rangeland

Wetland

Nonforested Wetland

COMMENTS ON HABITAT ASSOCIATIONS

Bobolinks breed in hayfields, meadows, marshes and fallow fields. They may prefer moist lowlands to uplands. Taller grasses and forbs are preferred. *508,509*.

ATTACHMENT 4